S. HRG. 101-1181

RECLAMATION WASTEWATER AND GROUNDWATER STUDY ACT AND RECLAMATION PROJECTS AUTHORIZATION AND ADJUSTMENT ACT OF 1990

HEARING

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

OF THE

COMMITTEE ON ENERGY AND NATURAL RESOURCES UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

S. 2657

TO DIRECT THE SECRETARY OF THE INTERIOR, ACTING PURSUANT TO THE RECLAMATION ACT OF 1902 (ACT OF JUNE 17, 1902, 32 STAT. 388) AND ACTS AMENDATORY THEREOF AND SUPPLEMENTARY THERETO, TO UNDERTAKE CERTAIN STUDIES TO INVESTIGATE OPPORTUNITIES FOR WASTEWATER RECLAMATION AND REUSE, TO CONDUCT STUDIES OF GROUNDWATER, AND FOR OTHER PURPOSES

H.R. 2567

AN ACT ENTITLED RECLAMATION PROJECTS AUTHORIZATION AND ADJUSTMENT ACT OF 1990

SEPTEMBER 27, 1990

Printed for the use of the
Committee on Energy and Natural Resources

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S 311-28

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RECLAMATION WASTEWATER AND GROUNDWATER STUDY ACT AND RECLAMATION PROJECTS AUTHORIZATION AND ADJUSTMENT ACT OF 1990

THURSDAY, SEPTEMBER 27, 1990

U.S. SENATE,
SUBCOMMITTEE ON WATER AND POWER,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:07 a.m., in room SD-366, Dirksen Senate Office Building, Hon. Bill Bradley, presiding.

OPENING STATEMENT OF HON. BILL BRADLEY, U.S. SENATOR FROM NEW JERSEY

Senator BRADLEY. The subcommittee will come to order.

This morning the Subcommittee on Water and Power will conduct a hearing on two bills concerning the Bureau of Reclamation.

S. 2657 is a measure that I sponsored which would direct the Secretary of the Interior to study opportunities to reclaim and reuse agricultural, municipal, industrial, and other wastewater resulting from water supplied by reclamation facilities. Though less glamorous than construction of dams or canals, wastewater reclamation and reuse is an important and sensible means to make the most efficient use of our already developed water supplies.

In many cases I expect that wastewater reuse programs, while meeting growing human needs, also will contribute substantially to environmental restoration programs and efforts to protect instream flows.

S. 2657 also directs the Secretary to study the Reclamation program's impact on groundwater resources. It is self evident that we need to understand the linkage between surface water development and groundwater supplies in order to make the most efficient and environmentally sound use of water resources. This section of S. 2657 mirrors the text of the bill reported from the Energy Committee, but not considered by the Senate during the last Congress.

The second measure before the subcommittee today, title XIII of H.R. 2567, is being considered at Senator Nickles' request. This measure would authorize the Secretary to accept early payment of the debt associated with construction of McGee Creek Project in Oklahoma.

We will hear from one witness, who is a familiar face to the subcommittee, Mr. Roger Patterson, Director of the Bureau's Great Plains region.

But before we do, I would recognize Senator Nickles for any comments or statement.

[The texts of S. 2657 and H.R. 2567 follow:]

II

101ST CONGRESS
2D SESSION

S. 2657

To direct the Secretary of the Interior, acting pursuant to the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) and Acts amendatory thereof and supplementary thereto, to undertake certain studies to investigate opportunities for wastewater reclamation and reuse, to conduct studies of groundwater, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MAY 18 (legislative day, APRIL 18), 1990

Mr. BRADLEY introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To direct the Secretary of the Interior, acting pursuant to the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) and Acts amendatory thereof and supplementary thereto, to undertake certain studies to investigate opportunities for wastewater reclamation and reuse, to conduct studies of groundwater, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Reclamation Wastewater and Groundwater Study Act".

TITLE I—WASTEWATER RECLAMATION AND REUSE STUDIES

GENERAL AUTHORITY

SEC. 101. (a) The Secretary of the Interior (hereafter "Secretary"), acting pursuant to the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) and Acts amendatory thereof and supplementary thereto (hereafter "Federal Reclamation laws"), is directed to undertake a program to investigate and identify opportunities for reclamation and reuse of municipal, industrial, domestic, and agricultural wastewater resulting from water supplied, in part or in whole, by reclamation facilities.

(b) Such program shall be limited to the States and areas referred to in section 1 of the Reclamation Act of 1902 (Act of June 17, 1902, 32 Stat. 388) as amended.

(c) The Secretary is authorized to enter into such agreements and promulgate such regulations as may be necessary to carry out the purposes and provisions of this Act.

(d) The Secretary shall not investigate, promote, or implement, pursuant to this Act, any wastewater reclamation and reuse project intended to treat agricultural wastewater generated in the service area of the San Luis unit of the Central Valley project.

(e) The Secretary shall not investigate, promote, or implement any wastewater reclamation and reuse project intended or likely to increase production of surplus crops.

APPRAISAL INVESTIGATIONS

SEC. 102. (a) The Secretary shall undertake appraisal investigations to identify opportunities for wastewater reclamation and reuse. Each such investigation shall take into account environmental considerations as provided by the National Environmental Policy Act (Act of January 1, 1970, 83 Stat. 852) and regulations issued to implement the provisions thereof, and shall include recommendations as to the preparation of a feasibility study of the potential reclamation and reuse measures.

(b) Appraisal investigations undertaken pursuant to this title shall consider, among other things—

(1) all potential uses of reclaimed wastewater, including, but not limited to, environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, hydropower generation, and recreation;

(2) the current status of wastewater reclamation technology and opportunities for development of improved technologies, and

(3) measures to stimulate demand for and eliminate obstacles to use of reclaimed wastewater.

(c) The Secretary shall consult with appropriate State, regional, and local authorities during the conduct of each appraisal investigation conducted pursuant to this section.

(d) Costs of such appraisal investigations shall be non-reimbursable.

FEASIBILITY STUDIES

SEC. 103. (a) The Secretary is authorized to participate with appropriate Federal, State, regional, and local authorities in studies to determine the feasibility of wastewater reclamation and reuse projects recommended for such study pursuant to subsection 102(a) of this Act. The Federal share of the costs of such feasibility studies shall not exceed 50 per centum of the total, except that the Secretary may increase the Federal share of the costs of such feasibility study if the Secretary determines, based upon a demonstration of financial hardship on the part of the non-Federal participant, that the non-Federal participant is unable to contribute at least 50 per centum of the costs of such study. The Secretary may accept as part of the non-Federal cost share the contribution of such in-kind services by the non-Federal participant that the Secretary determines will contribute substantially toward the conduct and completion of the study.

(b) Not later than one year after the date of enactment of this Act, and annually thereafter, the Secretary shall report on the status and findings of each feasibility study undertaken pursuant to this section and each appraisal investi-

gation undertaken pursuant to section 102 of this Act. The Secretary shall submit the report to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives.

(c) The Federal share of feasibility studies, including those described in sections 104 and 105 of this Act, shall be reimbursable to the Treasury if the project studied is implemented.

(d) In addition to the requirements of other Federal laws, feasibility studies authorized under this Act shall consider, among other things—

(1) near- and long-term water demand and supplies in the study area;

(2) all potential uses for reclaimed wastewater;

(3) measures and technologies available for wastewater reclamation, distribution, and reuse;

(4) public health and environmental quality issues associated with use of reclaimed wastewater, and

(5) whether development of the wastewater reclamation and reuse measures under study would—

(A) reduce, postpone, or eliminate development of new or expanded water supplies, or

(B) reduce or eliminate the use of existing diversions from natural watercourses or withdrawals from aquifers.

SOUTHERN CALIFORNIA COMPREHENSIVE WASTEWATER RECLAMATION AND REUSE STUDY

SEC. 104. (a) The Secretary is authorized to conduct a study to asses the feasibility of a comprehensive wastewater reclamation and reuse system for southern California. For the purpose of this Act, the term "southern California" means those portions of the counties of Imperial, Los Angeles, Orange, San Bernadino, Riverside, San Diego, and Ventura within the south coast and Colorado River hydrologic regions as defined by the California Department of Water Resources.

(b) The Secretary shall conduct the study authorized by this section in cooperation with the State of California and appropriate local and regional entities. The Federal share of the costs associated with this study shall not exceed 50 per centum of the total.

(c) The Secretary shall submit the report authorized by this section to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives not later than three years after appropriation of funds authorized by this title.

SEC. 105. SAN DIEGO AREA WASTEWATER RECLAMATION PROGRAM.

(a) The Secretary, in cooperation with the city of San Diego, California, shall conduct a feasibility study of the potential for development of demonstration facilities to reclaim and reuse wastewater in the San Diego metropolitan service area.

(b) The Federal share of the costs of the study authorized by this section shall not exceed 50 per centum of the total.

(c) The Secretary shall submit the report authorized by this section to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives not later than three years after appropriation of funds authorized by this title.

AUTHORIZATION OF APPROPRIATIONS

SEC. 106. There are authorized to be appropriated such sums as may be necessary to carry out the purposes and provisions of this title.

TITLE II—RECLAMATION GROUNDWATER STUDY

SEC. 201. (a) In furtherance of the High Plains Groundwater Demonstration Program Act of 1983 (98 Stat. 1675), the Secretary of the Interior, acting through the Bureau of Reclamation and the Geological Survey, shall conduct an investigation and analysis of the impacts of existing Bureau of

Reclamation projects on the quality and quantity of groundwater resources. Based on such investigation and analysis, the Secretary shall prepare a reclamation groundwater management and technical assistance study which shall include—

(1) a description of the findings of the investigation and analysis, including the methodology employed;

(2) a description of methods for optimizing Bureau of Reclamation project operations to ameliorate adverse impacts on groundwater; and

(3) the Secretary's recommendations, along with the recommendations of the Governors of the affected States, concerning the establishment of a groundwater management and technical assistance program in the Department of the Interior in order to assist Federal and non-Federal entity development and implementation of groundwater management plans and activities.

(b) In conducting the investigation and analysis, and in preparation of the study referred to in this section, the Secretary shall consult with the Governors of the affected States.

(c) The report shall be submitted to the Committees on Appropriations and Interior and Insular Affairs of the House of Representatives and the Committees on Appropriations and Energy and Natural Resources of the Senate within two years of the appropriation of funds authorized by this title.

SEC. 202. There is authorized to be appropriated for fiscal years beginning after September 30, 1990, $4,000,000 to carry out the study authorized by this title.

○

II

101ST CONGRESS
2D SESSION

H. R. 2567

IN THE SENATE OF THE UNITED STATES

JUNE 19 (legislative day, JUNE 11), 1990
Received; read twice and placed on the calendar

JUNE 20 (legislative day, JUNE 11), 1990
Ordered referred to the Committee on Energy and Natural Resources

AN ACT

Entitled: Reclamation Projects Authorization and Adjustment Act of 1990.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Reclamation Projects Authorization and Adjustment Act of 1990".

SEC. 2. DEFINITION OF SECRETARY.

For purposes of this Act, the term "Secretary" means the Secretary of the Interior.

TITLE I—BUFFALO BILL DAM AND RESERVOIR, WYOMING

SEC. 101. ADDITIONAL AUTHORIZATION OF APPROPRIATIONS.

Title I of Public Law 97–293 (96 Stat. 1261) is amended as follows:

(1) In the second sentence of section 101, by striking "replacing the existing Shoshone Powerplant," and inserting "constructing power generating facilities with a total installed capacity of 25.5 megawatts,".

(2) In section 102—

(A) by amending the heading to read as follows: "RECREATIONAL FACILITIES, CONSERVATION, AND FISH AND WILDLIFE"; and

(B) by adding at the end the following: "The construction of recreational facilities in excess of the amount required to replace or relocate existing facilities is authorized, and the costs of such construction shall be borne equally by the United States and the State of Wyoming pursuant to the Federal Water Project Recreation Act.".

(3) In section 106(a)—

(A) by striking "for construction of the Buffalo Bill Dam and Reservoir modifications the sum of $106,700,000 (October 1982 price levels)" and inserting "for the Federal share of the con-

struction of the Buffalo Bill Dam and Reservoir modifications and recreational facilities the sum of $80,000,000 (October 1988 price levels)"; and

(B) by striking "modifications" and all that follows and inserting "modifications.".

TITLE II—TREATMENT OF DRAINAGE FROM THE LEADVILLE MINE DRAINAGE TUNNEL, COLORADO

SEC. 201. AUTHORIZATION OF CONSTRUCTION, OPERATION, AND MAINTENANCE.

In order that water flowing from the Leadville Mine Drainage Tunnel, Colorado shall meet water quality standards, the Secretary is authorized, subject to the provisions of section 204 of this title, to—

(a) design, construct, operate and maintain a water treatment plant, including the disposal of sludge produced by such a treatment plant, as appropriate, and

(b) install concrete lining on the rehabilitated portion of the Leadville Mine Drainage Tunnel.

SEC. 202. DESIGN.

The treatment plant authorized by section 201 shall be designed and constructed to treat the quantity and quality of effluent historically discharged from the Leadville Mine

Drainage Tunnel, and to meet requirements of the Clean Water Act.

SEC. 203. TREATMENT OF COSTS.

Design, construction, and operation and maintenance costs of the works authorized by section 201 shall be non-reimbursable.

SEC. 204. DESIGN AND OPERATION NOTIFICATION.

Prior to the initiation of construction and during construction of the works authorized by section 201, the Secretary shall submit the plans for design and operation of the works to the Administrator of the Environmental Protection Agency, and the State of Colorado to obtain their views on the design and operation plans. After such review and consultation, the Secretary shall notify the Speaker of the House of Representatives and the President Pro Tempore of the Senate that the discharge from the works to be constructed will meet the requirements set forth in Federal Facilities Compliance Agreement No. FFCA–89–1, entered into by the Bureau of Reclamation and the Environmental Protection Agency on February 7, 1989, and in National Pollutant Discharge Elimination System permit No. CO–0021717 issued to the Bureau of Reclamation in 1975 and reissued in 1979 and 1981.

SEC. 205. OPERATION AND MAINTENANCE.

The Secretary shall be responsible for operation, maintenance, and replacement of the water treatment plant, including sludge disposal authorized by this title. The Secretary may carry out the responsibilities of this section by contract.

SEC. 206. RESTORATION OF FISH AND WILDLIFE RESOURCES.

(a) AUTHORIZATION.—The Secretary is authorized, in consultation with the State of Colorado, to formulate and implement, subject to the provisions of subsection (b) of this section, a program for the restoration of fish and wildlife resources of those portions of the Arkansas River basin impacted by the effluent discharged from the Leadville Mine Drainage Tunnel. The formulation of the program shall be undertaken with appropriate public consultation.

(b) NOTIFICATION TO THE CONGRESS.—Prior to implementing the program, the Secretary shall submit a copy of the proposed restoration program to the Speaker of the House of Representatives and the President Pro Tempore of the Senate for a period of not to exceed sixty days.

SEC. 207. UPPER ARKANSAS RIVER BASIN WATER QUALITY RESTORATION INITIATIVE.

(a) AUTHORIZATION.—The Secretary of the Interior is authorized, in consultation with the State of Colorado, the Environmental Protection Agency, and other Federal entities, to conduct investigations of water pollution sources and

impacts attributed to mining related and other development in the Upper Arkansas River Basin, to develop corrective action plans, and to implement corrective action demonstration projects. The Secretary of the Interior shall have no authority under this section at facilities or units which are subject to or covered by the Resource Conservation and Recovery Act or the Comprehensive Environmental Response Compensation and Liability Act of 1980.

(b) UPPER ARKANSAS RIVER BASIN.—For the purposes of subsection (a), the Upper Arkansas River Basin means the hydrologic basin in the Arkansas River in Colorado extending from Pueblo Dam (a United States Bureau of Reclamation facility) upstream to its headwaters.

(c) PUBLIC INVOLVEMENT.—The development of all corrective action plans and subsequent corrective action demonstration projects shall be undertaken with appropriate public involvement pursuant to a public participation plan, consistent with regulations promulgated under the Federal Water Pollution Control Act, developed by the Secretary in consultation with the State of Colorado and the Environmental Protection Agency.

(d) UTILIZATION OF NON-FEDERAL FUNDS AND SERVICES.—The Secretary shall arrange for cost sharing with the State of Colorado and for the utilization of non-Federal funds and in-kind services where possible. The Federal share of

costs for the activities authorized in subsection (a) of this section shall be limited to 50 percent.

(e) SUBMISSION OF PLANS TO CONGRESS.—Prior to implementing any corrective action demonstration project, the Secretary shall submit a copy of the proposed project plans to the Speaker of the House of Representatives and the President Pro Tempore of the Senate.

(f) CERCLA.—Nothing in this title affects or modifies, in any way, the obligations or liabilities of any person under other Federal or State law, including common law, with respect to the discharge or release of hazardous substances, pollutants or contaminants, as defined under section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601).

SEC. 208. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to carry out the activities specified in sections 201 through 207 of this title, the sum of $20 million (based upon January 1989 prices). There are also authorized to be appropriated such additional sums as may be required for operation and maintenance of the works authorized by sections 201 and 207(a) of this title.

TITLE III—LAKE MEREDITH SALINITY CONTROL PROJECT

SEC. 301. AUTHORIZATION TO CONSTRUCT AND TEST.

The Secretary is authorized to construct and test the Lake Meredith Salinity Control Project, New Mexico and Texas, in accordance with the Federal Reclamation laws (Act of June 17, 1902, 32 Stat. 788, and Acts amendatory thereof or supplementary thereto) and the provisions of this title and the plan set out in the June 1985 Technical Report of the Bureau of Reclamation on this project with such modification of, omissions from, or additions to the works, as the Secretary may find proper and necessary for the purpose of improving the quality of water delivered to the Canadian River downstream of Ute Reservoir, New Mexico, and entering Lake Meredith, Texas. The principal features of the project shall consist of production wells, observation wells, pipelines, pumping plants, brine disposal facilities, and other appurtenant facilities.

SEC. 302. CONSTRUCTION CONTRACT WITH THE CANADIAN RIVER MUNICIPAL WATER AUTHORITY.

(a) AUTHORITY TO CONTRACT.—The Secretary is authorized to enter into a contract with the Canadian River Municipal Water Authority of Texas (hereafter in this title the "Authority") for the design and construction management of project facilities by the Bureau of Reclamation and

for the payment of construction costs by the Authority. Operation and maintenance of project facilities upon completion of construction and testing shall be the responsibility of the Authority.

(b) CONSTRUCTION CONTINGENT ON CONTRACT.—Construction of the project shall not be commenced until a contract has been executed by the Secretary with the Authority, and the State of New Mexico has granted the necessary permits for the project facilities.

SEC. 303. PROJECT COSTS.

(a) CANADIAN RIVER MUNICIPAL WATER AUTHORITY SHARE.—All costs of construction of project facilities shall be advanced by the Authority as the non-Federal contribution toward implementation of this title. Pursuant to the terms of the contract authorized by section 302 of this title, these funds shall be advanced on a schedule mutually acceptable to the Authority and the Secretary, as necessary to meet the expense of carrying out construction and land acquisition activities.

(b) FEDERAL SHARE.—All project costs for design preparation, and construction management shall be nonreimbursable as the Federal contribution for environmental enhancement by water quality improvement, except that the Federal contribution shall not exceed 33 per centum of the total project costs.

SEC. 304. CONSTRUCTION AND CONTROL.

(a) PRECONSTRUCTION.—The Secretary shall, upon entering into the contract specified in section 302 with the Authority, proceed with preconstruction planning, preparation of designs and specifications, acquiring permits, acquisition of land and rights, and award of construction contracts pending availability of appropriated funds.

(b) TERMINATION OF CONSTRUCTION.—At any time following the first advance of funds, the Authority may request that the Secretary terminate activities then in progress, and such request shall be binding upon the Secretary, except that, upon termination of construction pursuant to this section, the Authority shall reimburse to the Secretary a sum equal to 67 per centum of all costs incurred by the Secretary in project verification, design and construction management, reduced by any sums previously paid by the Authority to the Secretary for such purposes. Upon such termination, the United States is under no obligation to complete the project as a nonreimbursable development.

(c) TRANSFER OF CONTROL.—Upon completion of construction and testing of the project, or upon termination of activities at the request of the Authority, the Secretary shall transfer the care, operation, and maintenance of the project works to the Authority or to a bona fide entity mutually agreeable to the States of New Mexico and Texas. As part of such transfer, the Secretary shall return unexpended balances

of the funds advanced, assign to the Authority or the bona fide entity the rights to any contract in force, convey to the Authority or the bona fide entity any real estate, easements or personal property acquired by the advanced funds, and provide any data, drawings, or other items of value procured with advanced funds.

SEC. 305. TRANSFER OF TITLE.

Title to any facilities constructed under the authority of this title shall remain with the United States.

SEC. 306. AUTHORIZATION.

There are hereby authorized to be appropriated such sums as are necessary to carry out the provisions of this title, except that the total Federal contribution to the cost of the activities undertaken under the authority of this title shall not exceed 33 per centum.

TITLE IV—CEDAR BLUFF UNIT, KANSAS

SEC. 401. AUTHORIZATION OF REFORMULATION.

The Secretary, consistent with the provisions of the Memorandum of Understanding between the Bureau of Reclamation and the Fish and Wildlife Service of the Department of the Interior, the State of Kansas, and the Cedar Bluff Irrigation District No. 6, dated December 17, 1987, is authorized to reformulate the Cedar Bluff Unit of the Pick-Sloan Missouri Basin Program, Kansas, including realloca-

tion of the conservation capacity of the Cedar Bluff Reservoir, to create—

(1) a designated operating pool, as defined in such Memorandum of Understanding, for fish, wildlife, and recreation purposes, for ground water recharge for environmental, domestic, municipal and industrial uses, and for other purposes; and

(2) a joint-use pool, as defined in such Memorandum of Understanding, for flood control, for water sales, for fish, wildlife, and recreation purposes, and for other purposes.

SEC. 402. CONTRACT WITH THE STATE OF KANSAS FOR OPERATING POOL.

The Secretary may enter into a contract with the State of Kansas for the sale, use and control of the designated operating pool, with the exception of water reserved for the city of Russell, Kansas, and to allow the State of Kansas to acquire use and control of water in the joint-use pool, except that, the State of Kansas shall not permit utilization of water from Cedar Bluff Reservoir to irrigate lands in the Smoky Hill River Basin from Cedar Bluff Reservoir to its confluence with Big Creek.

SEC. 403. CONTRACT WITH THE STATE OF KANSAS FOR CEDAR BLUFF DAM AND RESERVOIR.

(a) AUTHORIZATION.—The Secretary may enter into a contract with the State of Kansas, accepting a payment of $350,000, and the State's commitment to pay a proportionate share of the annual operation, maintenance, and replacement charges for the Cedar Bluff Dam and Reservoir. After the reformulation of the Cedar Bluff Unit authorized by this title, all net revenues received by the United States from the sale of water at the Cedar Bluff Unit shall be credited to the Reclamation Fund.

(b) CONTRACT TERMINATION.—Upon receipt of the payment specified in subsection (a), the Cedar Bluff Irrigation District's obligations under contract number 0-07-70-W0064 shall be terminated.

(c) TRANSFER OF FISH HATCHERY.—The Secretary may transfer ownership of the buildings, fixtures, and equipment of the United States Fish and Wildlife Service fish hatchery facility at Cedar Bluff Dam, and the related water rights, to the State of Kansas for its use and operation for fish, wildlife, and related purposes. If any of the property transferred by this subsection to the State of Kansas is subsequently transferred from State ownership or used for any purpose other than those provided for in this subsection, title to such property shall revert to the United States.

SEC. 404. TRANSFER OF DISTRICT HEADQUARTERS.

The Secretary may transfer title to all interests in real property, buildings, fixtures, equipment, and tools associated with the Cedar Bluff Irrigation District headquarters located near Hays, Kansas, contingent upon the District's agreement to close down the irrigation system to the satisfaction of the Secretary at no additional cost to the United States, after which all easement rights shall revert to the owners of the lands to which the easements are attached. The transferee of any interests conveyed pursuant to this section shall assume all liability with respect to such interests and shall indemnify the United States against all such liability.

SEC. 405. ADDITIONAL ACTIONS.

The Secretary may take all other actions consistent with the provisions of the Memorandum of Understanding referred to in section 401 that the Secretary deems necessary to accomplish the reformulation of the Cedar Bluff Unit.

TITLE V—MISCELLANEOUS PROVISIONS, CENTRAL VALLEY PROJECT, CALIFORNIA

SEC. 501. EXTENSION OF THE TEHAMA-COLUSA CANAL SERVICE AREA.

The first paragraph of section 2 of the Act of September 26, 1950 (64 Stat. 1036), as amended by the Act of August 19, 1967 (81 Stat. 167), and the Act of December 22, 1980 (94 Stat. 3339), authorizing the Sacramento Valley Irrigation Canals, Central Valley Project, California, is fur-

ther amended by striking: "Tehama, Glenn, and Colusa Counties, and those portions of Yolo County within the boundaries of the Colusa County, Dunnigan, and Yolo-Zamora water districts or" and inserting in lieu thereof: "Tehama, Glenn, and Colusa Counties, those portions of Yolo County within the boundaries of the Colusa County Water District, Dunnigan Water District, Yolo-Zamora Water District, and Yolo County Flood Control and Water Conservation District, and Solano County, or".

SEC. 502. AUTHORIZATION FOR LONG-TERM CONTRACT.

(a) GENERAL AUTHORITY.—Notwithstanding the Energy and Water Development Appropriations Act, 1990, the Secretary is authorized, pursuant to section 203 of the Flood Control Act of 1962 (76 Stat. 1191), to enter into a long-term contract in accordance with Federal Reclamation laws with the Toulumne Regional Water District, California, for the delivery of water from the New Melones Unit, Central Valley Project, California, for the delivery of water from the New Melones project to the county's water distribution system.

(b) RECLAMATION LAWS.—For purposes of subsection (a), the term "Federal Reclamation laws" means the Act of June 17, 1902 (32 Stat. 388), and Acts supplementary thereto and amendatory thereof.

TITLE VI—SALTON SEA RESEARCH PROJECT

SEC. 601. RESEARCH ON ENHANCED EVAPORATION SYSTEM FOR SALINE WATER.

The Secretary is authorized to conduct a research project for the development of an enhanced evaporation system for saline water treatment. The project shall be located in the area of the Salton Sea of Southern California.

SEC. 602. COST-SHARING.

The non-Federal share of the cost of the research project referred to in section 601 shall be 50 per centum of the total cost of the project.

SEC. 603. REPORT.

Not later than September 30, 1995, the Secretary shall submit a report to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate regarding the results of the research project referred to in section 601.

SEC. 604. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated $10,000,000 to carry out the provisions of this title.

TITLE VII—AMENDMENT TO SABINE RIVER COMPACT

SEC. 701. CONSENT TO AMENDMENT TO SABINE RIVER COMPACT.

The consent of Congress is given to the amendment, described in section 703, to the interstate compact, described in section 702, relating to the waters of the Sabine River and its tributaries.

SEC. 702. COMPACT DESCRIBED.

The compact referred to in the previous section is the compact between the States of Texas and Louisiana, and consented to by Congress in the Act of August 10, 1954 (Chapter 668; 68 Stat. 690; Public Law 85–78).

SEC. 703. AMENDMENT.

The amendment referred to in section 701 strikes "One of the Louisiana members shall be ex officio the Director of the Louisiana Department of Public Works; the other Louisiana member shall be a resident of the Sabine Watershed and shall be appointed by the Governor of Louisiana for a term of four years: *Provided*, That the first member so appointed shall serve until June 30, 1958." in article VII(c) and inserts "The Louisiana members shall be residents of the Sabine Watershed and shall be appointed by the Governor for a term of four years, which shall run concurrent with the term of the Governor.".

TITLE VIII—NAME CHANGE

SEC. 801. DESIGNATION.

The Salt-Gila Aqueduct of the Central Arizona Project, constructed, operated, and maintained under section 301(a)(7) of the Colorado River Basin Project Act (43 U.S.C. 1521(a)(7)), hereafter shall be known and designated as the "Fannin-McFarland Aqueduct".

SEC. 802. REFERENCES.

Any reference in any law, regulation, document, record, map, or other paper of the United States to the aqueduct referred to in Sec. 801 hereby is deemed to be a reference to the "Fannin-McFarland Aqueduct".

TITLE IX—WARREN ACT AMENDMENTS

SEC. 901. EXCESS STORAGE AND CARRYING CAPACITY.

The first sentence of the first section of the Act of February 21, 1911 (43 U.S.C. 523; commonly known as the "Warren Act"), is amended—

(a) by striking out "lands to be irrigated under any project" and inserting in lieu thereof "water users then entitled to the delivery of water from a Federal reclamation project";

(b) by striking out "lands and entrymen under the project" and inserting in lieu thereof "users of the Federal reclamation project, including fish and wildlife purposes,"; and

(c) by inserting before the final period ", municipal, industrial, domestic, or miscellaneous purposes, including fish and wildlife purposes".

TITLE X—AMENDMENTS TO RECLAMATION STATUTES

SEC. 1001. CONTRACT AMENDMENTS.

Subsection (h) of section 8 of the Reclamation Project Act of 1939 (43 U.S.C. 485g(h)) is amended to read as follows:

"(h) If any classification or reclassification of irrigable lands undertaken pursuant to this section results in an increase in the outstanding construction charges or rate of repayment on any project, as established by an existing contract with an organization, the Secretary shall amend the contract to increase the construction obligation or the rate of repayment. No other modification in outstanding construction charges or repayment rates may be made by reason of a classification or reclassification undertaken pursuant to this section without the approval of Congress.".

SEC. 1002. AUTHORITY FOR APPROPRIATE PENALTIES.

Section 224 of the Reclamation Reform Act of 1982 (43 U.S.C. 390ww), as amended, is further amended by adding at the end of subsection (c) the following: "Notwithstanding any other provision of law, the Secretary shall establish appropriate and effective penalties for failure to comply with

any provision of this Act or any regulation established pursuant to this Act.".

TITLE XI—WATER RECLAMATION AND REUSE

SEC. 1101. PARTICIPATION IN STUDY.

The Secretary is authorized to participate with the City of San Diego, California in the conduct of a study of conceptual plans for water reclamation and reuse. The Federal share of the cost of the study referred to in this section shall not exceed 50 per centum of the total cost of the study.

SEC. 1102. AUTHORIZATION OF APPROPRIATIONS.

There is hereby authorized to be appropriated the sum of $250,000 to carry out the Federal share of the study specified in section 1101 of this title.

TITLE XII—MINE EFFLUENT FISHERY

SEC. 1201. ESTABLISHMENT OF FISHERY RESOURCES.

(a) AUTHORIZATION.—The Secretary is authorized and directed to conduct a feasibility study on establishing a Federal fish hatchery in McDowell County, West Virginia. Conditioned upon the completion of the feasibility study and the location of a suitable site and water supply, the Secretary is authorized to construct a Federal fish hatchery as provided for in the feasibility study. The study shall be undertaken by the United States Fish and Wildlife Service in consultation with the State of West Virginia.

(b) If a fish hatchery is constructed in McDowell County, West Virginia pursuant to section 1201(a), the fish hatchery shall be known as the Carl R. Sullivan National Fish Hatchery.

(c) AUTHORIZATION OF APPROPRIATIONS.—There is hereby authorized to be appropriated the sum of $2,500,000 to carry out the provisions of this title.

TITLE XIII—McGEE CREEK CONTRACT ADJUSTMENT

SEC. 1301. CONTRACT ADJUSTMENT.

(a) AUTHORIZATION.—The Secretary is authorized and directed to enter into a contract with the McGee Creek Water Authority, Oklahoma City, Oklahoma, accepting a payment of $88,629,000.

(b) CONTRACT TERMINATION.—Upon receipt of the payment specified in subsection (a), the McGee Creek Water Authority's obligation under contract between the Authority and the Secretary numbered 0–07–50–X0822, dated October 11, 1979 shall be terminated.

SEC. 1302. TITLE TO PROJECT FACILITIES.

Notwithstanding any payments made by the McGee Creek Water Authority pursuant to section 1301(a) of this title or pursuant to any contract with the Secretary, title to project facilities of the McGee Creek Project, Oklahoma shall remain with the United States.

TITLE XIV—WATER AND POWER NEEDS OF INSULAR AREAS

SEC. 1401. FINDINGS.

The Congress hereby finds and declares that assuring adequate supplies of water, sewerage, and power for the residents of American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands has become a problem of such magnitude that the welfare and prosperity of these jurisdictions require the Federal Government to assist in finding permanent, long-term solutions to their water, sewerage, and power problems.

SEC. 1402. STUDY.

(a) AUTHORIZATION.—The Secretary, acting through the Bureau of Reclamation, is authorized and directed to undertake a comprehensive study of how the long-term water, sewerage, and power needs of American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the Virgin Islands can be resolved. Such study shall be conducted in consultation with the governments of those islands. Such study for each jurisdiction shall include, but not be limited to—

(1) an assessment of the magnitude and extent of current and expected needs;

(2) an assessment of how the needs can be resolved;

(3) the costs and benefits of alternative solutions;

(4) the need for additional legal authority for the President to take actions to meet the needs; and

(5) specific recommendations for the role of the Federal Government and each local government in solving the long-term needs.

(b) SUBMISSION OF THE REPORT.—Not later than 2 years after the date of enactment of this title, the Secretary shall transmit the studies required by this section, together with supporting documentation and recommendations of the Secretary and the views of the governments of the islands referred to in subsection (a), to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate.

SEC. 1403. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary, acting through the Bureau of Reclamation, through the end of fiscal year 1994, such sums as may be necessary, which are authorized to remain available until expended.

TITLE XV—RECLAMATION REFORM ACT AMENDMENTS

SEC. 1501. SHORT TITLE AND DEFINITION.

(a) SHORT TITLE.—This title may be cited as the "Reclamation Reform Act Amendments of 1990".

(b) DEFINITION.—As used in this title, the term "the Act" means the Reclamation Reform Act of 1982 (Public Law 97–293, 96 Stat. 1263, 43 U.S.C. 390aa, et. seq.).

SEC. 1502. NEW DEFINITION.

Section 202 of the Act is amended by adding the following new definition, and renumbering the subsequent sections accordingly:

"(3) The term 'farm' or 'farm operation' means any landholding or group of landholdings, including partial landholdings, directly or indirectly farmed or operated by an individual, group, entity, trust, or any other combination or arrangement. The existence of a farm or farm operation will be presumed when ownership, operation, management, financing or other factors, individually or together, indicate that one or more landholdings, including partial landholdings, are directly or indirectly farmed or operated by the same individual, group, entity, trust, or other combination or arrangement thereof: *Provided,* That the mere sharing of labor, equipment or services by members of a family, where such sharing is not part of any larger direct or indirect joint operation or management, shall not by itself initiate said presumption.".

SEC. 1503. ADDITION OF FARM OR FARM OPERATION TO THE ACT.

(a) The second sentence of section 203(b) of the Act is amended by inserting after "landholding" wherever it appears, the following: ", farm, or farm operation", and inserting after "leased" wherever it appears the following: ", farmed or operated".

(b) Section 205 of the Act is amended by inserting after "landholding" wherever it appears, the following: ", farm, or farm operation", and by inserting after "landholdings" the following: ", farms or farm operations".

SEC. 1504. TRUSTS.

Section 214(a) of the Act is amended by striking the period and inserting at the end of the section the following: ", except that such limitations shall apply to any trust, trust beneficiary, and farm or farm operation operated by or for such trustee for one or more beneficiaries. The provisions of this section, as amended, shall be applicable to any trust approved by the Secretary prior to June 14, 1990, to which the Secretary has not already applied such ownership or pricing limitations, 180 days after the date of enactment of this Act. In the case of all other trusts, such limitations are immediately applicable.".

SEC. 1505. INTENT AND PURPOSES.

Section 224(c) of the Act is amended to read as follows:

"(c) The Secretary is directed to prescribe regulations and shall collect all data necessary to carry out the intent, purposes, and provisions of this title and of other provisions of Federal reclamation law.".

SEC. 1506. REPORTING REQUIREMENTS.

(a) Section 228 of the Act is amended by inserting after "contracting entity" wherever it appears, the following: ", farm, or farm operation".

(b) Section 206 of the Act is amended by inserting after the final sentence the following: "This section shall also apply to all landholdings, farms, or farm operations, to all lands operated under any kind of operating agreement, and to all operators thereof. The Secretary, may also require the submission of any agreement or other document relating to the certification.".

SEC. 1507. RELIGIOUS OR CHARITABLE ORGANIZATIONS.

Section 219 of the Act is amended by—

(a) inserting at the beginning "(a)"; and

(b) inserting the following new subsections:

"(b) The terms 'farm' or 'farm operation' shall not apply to any landholding of a religious or charitable entity or organization which qualifies as an individual under this section. If an individual religious or charitable entity or organization holds land as a lessor within a district, it shall qualify as an individual with respect to such lands: *Provided*, That the

entity or organization directly uses the proceeds of the lease only for charitable purposes: *Provided further,* That the lessee is eligible to receive reclamation water upon the leased lands.

"(c) If an individual religious or charitable organization holds lands within a district, but fails to qualify as an individual under this section, its lands within a district with regard to which it does not qualify as an individual shall be lands held in excess of the ownership limitations of section 209 of this Act, and shall receive reclamation water only as excess lands in compliance with the provisions of section 209 of this Act. The failure of an individual religious or charitable entity or organization to qualify as an individual under this section shall not affect the qualification as an individual under this section of another individual religious or charitable entity or organization which is affiliated with the same central organization or is subject to a hierarchical authority of the same faith.".

SEC. 1508. RESTRICTION OF BENEFITS TO CITIZENS AND RESIDENT ALIENS.

(a) Section 202(7) of the Act is amended by striking the period and inserting in lieu thereof the following: ": *Provided,* That all such persons are citizens of the United States or resident aliens thereof.".

(b) Section 202(9) of the Act is amended by striking the period and inserting in lieu thereof the following: ": *Provided,* That all such persons are citizens of the United States or resident aliens thereof.".

TITLE XVI—COST OF IRRIGATION WATER

SEC. 1601. COST FOR DELIVERY OF WATER USED TO PRODUCE THE CROPS OF CERTAIN AGRICULTURAL COMMODITIES.

Section 9 of the Reclamation Projects Act of 1939 (43 U.S.C. 485h) is amended by inserting at the end thereof the following new subsection:

"(g)(1) All contracts entered into, renewed, or amended under authority of this section or any other provision of Federal reclamation law after—

"(A) 2 years after the date of enactment of this subsection shall require that the organization agree by contract with the Secretary to pay at least 50 percent of full cost for the delivery of water used in the production of any crop of an agricultural commodity for which an acreage reduction program is in effect under the provisions of the Agricultural Act of 1949, if the stocks of such commodity in Commodity Credit Corporation storage exceed an amount that the Secretary of Agriculture determines is necessary to provide for a reserve of such commodity that can reasonably be ex-

pected to meet a shortage of such commodity caused by drought, natural disaster, or other disruption in the supply of such commodity, as determined by the Secretary of Agriculture; and

"(B) 4 years after the date of enactment of this subsection shall require that the organization agree by contract with the Secretary to pay at least full cost for the delivery of water used in the production of any crop of an agricultural commodity for which an acreage reduction program is in effect under the provisions of the Agricultural Act of 1949, if the stocks of such commodity in Commodity Credit Corporation storage exceed an amount that the Secretary of Agriculture determines is necessary to provide for a reserve of such commodity that can be reasonably be expected to meet a shortage of such commodity caused by drought, natural disaster, or other disruption in the supply of such commodity, as determined by the Secretary of Agriculture.

"(2) The Secretary shall announce the amount of the full cost payment for the succeeding year on or before July 1 of each year.

"(3) As used in this subsection, the term 'full cost' shall have the meaning given such term in paragraph (3) of section 202 of the Reclamation Reform Act of 1982.

"(4) This subsection shall not apply to—

"(A) any contract which provides for irrigation on individual Indian or tribal lands on which repayment is deferred pursuant to the Act of July 1, 1932 (chap. 369; 47 Stat. 564; 25 U.S.C. 386(a); commonly referred to as the 'Levitt Act');

"(B) an amendment of any contract with any organization which, on the date of enactment of this subsection, is required pursuant to a contract with the Secretary as a condition precedent to the delivery of water to make cash contributions of at least 20 percent of the cost of construction of irrigation facilities concurrently with the construction of such facilities by the Secretary;

"(C) any contract which carries out the provisions of the Garrison Diversion Unit Reformulation Act of 1986 (Public Law 99–294, 100 Stat. 418); and

"(D) water delivered to any agricultural producer who is not a participant in any acreage reduction program in effect under the Agricultural Act of 1949.".

TITLE XVII—BUY-AMERICAN

SEC. 1701. BUY-AMERICAN REQUIREMENT.

(a) DETERMINATION BY THE SECRETARY OF THE INTERIOR.—If in carrying out title I of Public Law 97–293 (96 Stat. 1261), any provision of this Act, or any amendment

made by this Act, the Secretary of the Interior, with the concurrence of the United States Trade Representative and the Secretary of Commerce, determines that the public interest so requires, the Secretary of the Interior is authorized to award to a domestic firm a contract that, under the use of competitive procedures, would be awarded to a foreign firm, if—

(1) the final product of the domestic firm will be completely assembled in the United States;

(2) when completely assembled, not less than 51 percent of the final product of the domestic firm will be domestically produced; and

(3) the difference between the bids submitted by the foreign and domestic firms is not more than 6 percent.

In determining under this subsection whether the public interest so requires, the Secretary shall take into account United States international obligations and trade relations.

(b) LIMITED APPLICATION.—This section shall not apply to the extent to which—

(1) such applicability would not be in the public interest;

(2) compelling national security considerations require otherwise; or

(3) the United States Trade Representative determines that such an award would be in violation of the General Agreement on Tariffs and Trade or an international agreement to which the United States is a party.

(c) LIMITATION.—This section shall apply only to contracts for which—

(1) amounts are authorized by title I of Public Law 97–293, this Act, or any amendment made by this Act to be made available; and

(2) solicitations for bids are issued after the date of the enactment of this title.

(d) REPORT TO CONGRESS.—The Secretary shall report to the Congress on contracts covered under this section and shall report to the Congress on the number of contracts that meet the requirements of subsection (a) but which are determined by the United States Trade Representative to be in violation of the General Agreement on Tariffs and Trade or an international agreement to which the United States is a party. The Secretary shall also report to the Congress on the number of contracts covered under this title and awarded based upon the parameters of this section.

(e) DEFINITIONS.—For purposes of this section:

(1) SECRETARY.—The term "Secretary" means the Secretary of the Interior.

(2) DOMESTIC FIRM.—The term "domestic firm" means a business entity that is incorporated in the United States and that conducts business operations in the United States.

(3) FOREIGN FIRM.—The term "foreign firm" means a business entity not described in paragraph (2).

SEC. 1702. PROHIBITION AGAINST FRAUDULENT USE OF "MADE IN AMERICA" LABELS.

(a) If the Secretary of Interior determines that any person intentionally affixes a label bearing a "Made in America" inscription to any product sold in or shipped to the United States that is not made in America, the Secretary shall declare that person ineligible to receive a Federal contract or grant in conjunction with the issuance of any contract made under this Act for a period of not less than 3 years and not more than 5 years. The Secretary may bring action against such person to enforce this subsection in any United States district court.

(b) RESTRICTIONS ON CONTRACT AWARDS.—No person or enterprise domiciled or operating under the laws of a foreign government may enter into a contract or subcontract made pursuant to this Act if that government unfairly maintains, in government procurement, a significant and persistent pattern or practice of discrimination against United States products or services which results in identifiable harm

to United States businesses, as identified by the President pursuant to section 305(g)(1)(A) of the Trade Agreements Act of 1979.

TITLE XVIII—SUNNYSIDE VALLEY IRRIGATION DISTRICT

SEC. 1801. CONVEYANCE.

The Secretary of the Interior shall convey to Sunnyside Valley Irrigation District of Sunnyside, Washington by quitclaim deed or other appropriate instrument and without consideration, all right, title, and interest of the United States, excluding oil, gas, and other mineral deposits, in and to a parcel of public land described as Lots 1 and 2 of Block 34 of the Town of Sunnyside in Section 25, Township 10 North, Range 22 East, Willamette Meridian, Washington.

TITLE XIX—SLY PARK UNIT SALE

SEC. 1901. SALE OF SLY PARK UNIT.

(a) IN GENERAL.—The Secretary shall, as soon as practicable after date of enactment of this Act, sell the Sly Park Unit to the El Dorado Irrigation District.

(b) SALE PRICE.—The Secretary shall negotiate with the District a sale price which is acceptable to both the District and the United States. The factors to consider when negotiating the sale price shall primarily include, but are not limited to—

(1) the construction costs as included in the accounts of the Secretary, plus

(2) interest on the construction costs allocated to domestic use at the authorized rate included in enactment of the Act of October 14, 1949 (63 Stat. 852), up to an agreed upon date, plus

(3) the presently assigned Federal operation and maintenance costs, less

(4) all revenues to date as collected under the terms of the contract (Symbol 175v–1809) between the United States and the El Dorado Irrigation District.

(c) TERMS OF PAYMENT.—The Secretary may negotiate for a payment of the purchase price on a lump-sum basis or on a semiannual basis for a term of not to exceed twenty years. If payment is not to be lump-sum, then the interest rate to be paid by the District shall be the rate referred to in subsection (b)(2).

(d) CONVEYANCE.—Upon completion of payment by the District, the Secretary shall convey to the El Dorado Irrigation District all right, title, and interest and future liability of the United States in and to the Sly Park Unit. All costs associated with the transfer shall be borne by the District.

SEC. 1902. DEFINITIONS.

For the purpose of this title, the term—

(1) "El Dorado Irrigation District" or "District" means a political subdivision of the State of California duly organized, existing, and acting pursuant to the laws thereof with its principal place of business in the city of Placerville, El Dorado County, California.

(2) "Secretary" means Secretary of the Interior.

(3) "Sly Park Unit" means the Sly Park Dam and Reservoir, Camp Creek Diversification Dam and Tunnel and conduits and canals as authorized under the American River Act of October 14, 1949 (63 Stat. 853).

Passed the House of Representatives June 14, 1990.

Attest: DONNALD K. ANDERSON,

Clerk.

STATEMENT OF HON. DON NICKLES, U.S. SENATOR FROM OKLAHOMA

Senator NICKLES. Mr. Chairman, thank you very much.

I appreciate your kindness here. I used to be chairman of the Subcommittee on Water and Power for a few years, so you have my thanks and also my condolences. I know you have a lot of hearings on a lot of Bureau projects.

Mr. Chairman, title XIII of the House-passed Reclamation Projects Authorization and Adjustment Act, H.R. 2567, would authorize the Bureau of Reclamation to accept early repayment on the McGee Creek Lake Project. McGee Creek Lake Project was constructed over the last 10 years in the Red River Basin on McGee Creek in Atoka County, Oklahoma.

The project was authorized for water supply, water quality control, flood control, recreation, and fish and wildlife in Public Law 94-423 and approved September 28, 1976. The primary recipient of the water supply from the project is Oklahoma City, Oklahoma.

The original contract between the Bureau and McGee Creek Water Authority called for a 50-year payment plan on total reimbursable construction costs of $122 million. The legislation I seek will authorize the Bureau to accept a payment of $88,629,000 from the authority representing the net present value of the 50-year stream of payments under the original contract.

Now that the project is complete, the authority is prepared to repay its obligation to the Federal Government. By doing so the authority can save a substantial amount of money by financing the project on the open market, and the Bureau can benefit by receiving immediate payment of a long-term debt.

The Federal Government, in this case, Mr. Chairman, would lose nothing and the Oklahoma City water users would save $33 million.

Mr. Chairman, this legislation has passed the House of Representatives on two separate occasions and is supported by my colleague, Senator Boren.

With the conclusion of this hearing I trust the subcommittee will support my efforts to offer this legislation as amendment to H.R. 2567 as reported by this committee.

Mr. Chairman, again I want to thank you for having this hearing and for your assistance.

Senator BRADLEY. Thank you very much, Senator Nickles.

Mr. Patterson.

Mr. PATTERSON. Good morning, Mr. Chairman, Senator Nickles.

It is my pleasure to be here this morning to present the administration's testimony and comments on both title XIII of H.R. 2567 and also S. 2657.

Is there a particular order that we would like to address those?

Senator BRADLEY. Seeing that Senator Nickles is here, why do you not address his proposal first? Then, if he would like to go, he may.

STATEMENT OF ROGER K. PATTERSON, REGIONAL DIRECTOR, GREAT PLAINS REGION, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ON H.R. 2567

Mr. PATTERSON. Title XIII of H.R. 2567 would authorize the Secretary to accept prepayment for the reimbursable costs associated with the municipal and industrial cost of the McGee Creek Project in Oklahoma.

As presented, we are opposed to title XIII. The reimbursable costs allocated to the municipal industrial component is $128.7 million. The contract with the McGee Creek Authority is a 50-year contract that provides for repayment at an interest rate of 7.21 percent.

The proposed bill would direct the Secretary to accept as full prepayment an amount of $88,629,000. That discounted prepayment is based on a rate of approximately 9 percent over the 50-year period of the repayment contract.

Our opposition to this bill is centered on the fact that the Administration has a process for consideration of loan asset sales. That process requires us to bring in for a review by a financial advisor any proposed loan asset sale. We simply have not gone through that process to determine whether or not, when all things are considered, the prepayment represents the full amount to keep the United States whole in this case.

So, based on that, we are opposed to this bill.

[The prepared statement of Mr. Patterson on H.R. 2567 follows:]

PREPARED STATEMENT OF ROGER K. PATTERSON, REGIONAL DIRECTOR, GREAT PLAINS REGION, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ON H.R. 2567

Thank you for the opportunity to present comments on Title XIII of H.R. 2567. We are opposed to Title XIII of H.R. 2567 which would authorize the Secretary to accept prepayment of the reimbursable construction costs allocable to the municipal and industrial water supply from the McCee Creek Project in Oklahoma.

Reimbursable construction costs of approximately $128.7 million are scheduled to be repaid by the McGee Creek Authority over a 50-year period at 7.21 percent interest, beginning in 1991. The language of Title XIII of H.R. 2567 would authorize a single payment of $88,629,000.

The proposed legislation would authorize the Secretary of the Interior to accept the discounted payment of $88,629,000 in full satisfaction of the Authority's financial obligation to the United States under its October 11, 1979, repayment contract.

The payment is based on a discount rate of approximately 9 percent over the 50-year repayment period. However, the Administration has an established process for considering and evaluating all loan asset sales. The process includes requirements for review by a financial advisor and a determination that the prepayment is in the best financial interest of the Federal Government. An important part of this process is a review of all pertinent financial issues, including whether or not tax-exempt financing is the source of the prepayment. The condition for Administration support for a bill of this nature have simply not been met.

Mr. Chairman, this concludes my testimony and I would be pleased to answer any questions.

Senator NICKLES. Mr. Chairman, may I ask Mr. Patterson a question?

You say you have not gone through the process. Have you started the process?

Mr. PATTERSON. We have received in writing two offers over the years from the McGee Creek Authority, one in 1987 and one in March 1990. We analyzed the offer they provided. We did comment back to the McGee Creek Authority that we thought the proposal

they made did not keep the United States whole and that that would be a requirement. That is as far as we have gone.

We have not gone any further. And we were not party to the development of the number that is being proposed.

Senator NICKLES. Do you have another number?

Mr. PATTERSON. We do not because we have not gone through that process.

We have looked at a discount simply based on what we believe the full amount of $128.7 million is, discounted at a 9-percent rate, which, considered by itself, is roughly $90 million.

Senator NICKLES. Roughly $90 million, and the city is saying that it should be $88.6 million. I understand that the difference is involved in a claim against the Bureau by a contractor that the Bureau had settled out of court. Is that correct?

Mr. PATTERSON. Part of the difference, I believe, is approximately a $10 million claim which the Bureau did settle.

Senator NICKLES. The Bureau settled for significantly less than $10 million, did it not?

Mr. PATTERSON. We settled for a little over $9.9 million.

Senator NICKLES. That is the difference. The city does not feel like they are liable for that. Am I correct?

Mr. PATTERSON. Yes. They have told us that they do not believe they are obligated to reimburse any of those costs. We have advised them that we believe they are.

Senator NICKLES. What was that dispute about?

Mr. PATTERSON. It was a dispute that a contractor had—it was a construction contract. Their claim arose from what they believed was an inadequate description in the specifications that related to rebar and the construction.

Senator NICKLES. But a contractor had a successful claim against the Bureau of Reclamation on the project?

Mr. PATTERSON. They filed the claim and we did make settlement of that claim for just under $10 million.

Senator NICKLES. But that is basically the difference, or part of the difference, between the $88 million and the $90 million?

Mr. PATTERSON. I believe they took that into account, but I am not sure that they took the full value.

Senator NICKLES. Disregarding that, you basically would assume that at 9 percent, the repayment would be $90 million and the city is saying that it should be $88.6 million. So there is not a whole lot of difference in the two.

Let me ask you a question, I am just wondering. I understood from staff that the Bureau had no opposition to this proposal. It has passed the House twice. It was my understanding that there was no opposition. Have you been instructed by OMB to not sign off on it? Or what is the situation?

Mr. PATTERSON. We present our testimony as it is. And there is a set process that the Federal Government has to evaluate these things. We have not gone through that.

Senator NICKLES. I understand, Mr. Patterson. I am just trying to figure out the problem. The city submitted a proposal in 1987?

Mr. PATTERSON. 1987 and in 1990.

Senator NICKLES. And here we are in 1990. I do not know that the proposals were all that much different, but interest rates

change, et cetera, and the cost continues compiling. I would like to see this thing settled. Personally, I think it would be to the advantage of the Government to do so.

Is the issue because of the fact that the city might be financing this with tax-free bonds and somebody else is saying, we do not want to have the substitution, or what?

Mr. PATTERSON. Well, that is one of the things, when we review these asset sales, the process does take into account how the debt will be refinanced. That is part of the formula.

Senator NICKLES. Does the Bureau do that, or are you now talking about OMB? Does OMB have to sign off on this?

Mr. PATTERSON. No. The Bureau does that. We go through the process and then we bring in a financial advisor to review the package.

Senator NICKLES. I am disappointed at your process. This has been floating around here for 3 years and you have not even come up with a figure.

Will you do this for me? Will you instigate the process? Will you come up with a figure?

I am not interested in the Government losing money. I just want to expedite the process.

Mr. PATTERSON. We are, too. And we will initiate that process. After the original proposal was made in 1987, there was language that was passed by the Congress which prevented us from transferring or accepting buyout of that project until just recently, when that language was removed.

Senator NICKLES. So now it is acceptable where you could receive the package. The difference would just be in the figure. The city has submitted two sums; you have not come back and said here is what we think the present value should be?

Mr. PATTERSON. We have not done that because we need to take into account more than just a discount interest rate. We need to consider some of these other factors. We have not done that. We are certainly ready and willing to embark on that.

Senator NICKLES. Part of this is another issue, the bigger issue of tax-free bonds. But the facts are that cities have tax-free bonds and I am not sure that that is the sole issue.

Let me ask you that. What is the total cost of this project, the McGee Creek Reservoir?

Mr. PATTERSON. The total cost of the project is right at $170 million.

Senator NICKLES. The Government has spent $170 million?

Mr. PATTERSON. We have spent $170 million, roughly; $120 million of that was capital investment and interest during construction of about $50 million.

Senator NICKLES. Capital at $120 million, and then interest?

Mr. PATTERSON. During construction, of $50 million.

Senator NICKLES. It was about $50 million.

Now this is a multi-use reservoir. This portion of the reservoir that we are talking about is for water supply. What kind of allocation did you have between recreation, flood control, and then water supply? How do you come up with what the water supply cost should be?

Mr. PATTERSON. We go through a cost allocation process where we allocate to the various purposes. It is the separable costs/remaining benefit process. The allocation to water supply, after doing that, is the $128.7 million.

Senator NICKLES. And the city seems to think it is $121 million. I think a lot of that deals with that litigation.

Mr. PATTERSON. I believe that.

Senator NICKLES. $8 million or $9 million.

Anyway, the bulk of the project is being picked up by water costs. The rest of the costs are basically borne by the Federal Government, not reimbursed by any entity?

Mr. PATTERSON. There is some small amount of reimbursement for fish and wildlife and recreation. But the majority of the remaining costs are nonreimbursable costs.

Senator NICKLES. How long will it take you to complete the process so we will know where we stand as far as what the Government would deem acceptable?

Mr. PATTERSON. I cannot tell you exactly how long that would take, but I think it would be a matter of a few months. That would be my guess.

Senator NICKLES. Mr. Patterson, I do not know who is calling the shots. You have not quite answered that question. Maybe you will answer it off the record. But when I am hearing one week that the Bureau has no objection to the legislation and then you testify today that it is but you do not say how much. Then you give me a figure that says well, we think it should be a $90 million payoff if it is discounted at 9 percent and the Government is paying—it all depends on what the term is, what the Government is paying for money today.

I just think it needs to be resolved. The thing has been hanging around for 3½ years. We need to resolve it one way or another. I do not want to spend a few months with it, frankly. So I will work with you and maybe if there is a problem over at OMB we can cut through the process. We will try and do that, too. But I do think it is important that we get this resolved.

Mr. Chairman, again I want to thank you for your cooperation in today's hearing.

Senator BRADLEY. Thank you very much, Senator Nickles.

Mr. Patterson, on this subject, you said language—what was your point, there was language that was removed that prevented——

Mr. PATTERSON. There was language passed by the Congress, I believe, in 1987 that prevented Reclamation from declaring the McGee Creek Project complete and thus transferring it to the McGee Creek Authority until such things, specifically, as the access roads were completed. And that language was essentially removed last year.

Senator BRADLEY. And after the roads were completed?

Mr. PATTERSON. After the roads were essentially complete, as well as the rest of the facilities.

Senator BRADLEY. I see. Was there an attempt to remove it in 1987 or earlier?

Mr. PATTERSON. We were not in a position to—the project was not complete and ready for transfer, even in 1987. But there was

some concern, I guess, about having the project fully complete and ready for acceptance by the McGee Creek Authority.

Senator BRADLEY. I see.

Senator NICKLES. Would the Senator yield just for a point? Correct me if I am wrong, I think the interest there was trying to get some of the roads and maybe some of the surrounding facilities around the lake complete, but the water supply and system with Oklahoma City was ready to go. And Oklahoma City was ready to pay off its portion. There was not really an objection to paying off the water supply portion. It was more or less an attempt by the Congressman to make sure that the road and some of the facilities around the project were completed.

Mr. PATTERSON. I believe that is correct.

Senator NICKLES. I do not think there is any objection at any time that I know of for the city of Oklahoma City—which this is what, 100 miles from Oklahoma City?

Mr. PATTERSON. Approximately.

Senator NICKLES. I do not think there has ever been any objection whatsoever from the city, which is buying most of the water, from prepaying or paying off that portion of the project.

Senator BRADLEY. Mr. Patterson, let me ask you, have you opposed asset sales in the past when the purchaser would use tax-free bonds to finance a transaction?

Mr. PATTERSON. I do not know the answer to that. I do know that that concept was part of determining discount rates in the past. Whether we have opposed it based on that, I do not know.

Senator BRADLEY. What about Auburn Dam? Are you familiar with that?

Mr. PATTERSON. I would have to say I am not.

Senator BRADLEY. You might check into that because it is my understanding that the Administration opposed Auburn Dam because it is 100 percent user financing using tax-exempt bonds.

Let me ask you this, if McGee Creek uses tax-free bonds to pay off its debt, would this action be similar to using tax-free financing to purchase a Federal asset?

Mr. PATTERSON. I suppose it would be similar, yes.

Senator BRADLEY. Would it have an impact on Federal revenues?

Mr. PATTERSON. Not that I could see.

Senator BRADLEY. Would it not decrease collections?

Mr. PATTERSON. Yes.

Senator BRADLEY. Instead of a taxable, you would be using a nontaxable?

Mr. PATTERSON. It could. Yes. Yes, it would.

Senator BRADLEY. Did the Bureau take this into account when it did its analysis?

Mr. PATTERSON. We did not because we have not really carried out the analysis. We did just a simple discount rate without taking those kinds of things into account.

Senator BRADLEY. So you have not taken that into account?

Mr. PATTERSON. We have not done that.

Senator NICKLES. Would the chairman yield just for maybe a follow-up point?

Decreasing collections to the Government? No, the Government would receive $88 million cash. They would be paid off. The issue, I

think, the Senator is playing with is should you have tax-free bonds.

Just to give you another analogy, we have another lake in Oklahoma. It is called Grand River Dam; it is a dam authority. Grand River Dam Authority is the name of it. It issues tax-free exempt bonds.

There are a lot of tax-free bonds for a lot of water authorities all across the country, some of which are—well, this one does not have anything to do with the Bureau. But it is a whole other issue for Congress to take up, whether or not we are going to have tax-free bonds. It just so happens that municipalities have tax-free bonds.

If we are going to deny tax-free bonds for municipalities, that is a whole other issue that I think we need to wrestle with. I do not think it should be just strictly on this one project. There are billions of dollars of tax-free bonds.

Senator BRADLEY. Mr. Patterson, what I would like you to do is to get us the number that you think this swap costs the Government, the revenue number. Basically, we are swapping taxable bonds for nontaxable bonds. There is no question that there is a right to issue a tax-exempt bond. We have been down that road a number of times in Finance Committee and always ended up with a dead end. That is going to be preserved.

But the question is: Is there revenue loss to the Government, and if so, how much is it? And you said to Senator Nickles that this analysis would take a couple of months. Does it have to take a couple of months?

Mr. PATTERSON. I do not know. All I can say is that we would do it as quickly as we could get it done.

Senator BRADLEY. Let us say that there is a certain element of urgency here. See if you cannot do the analysis so that you give us some number. We have had preliminary staff estimates as to what the differential is, and I would like to see whether your estimates are close to ours. It is not an insignificant number, as you are well aware. So if you could do that, that would be very helpful.

When will you be able to tell us when you will be able to get the number?

Mr. PATTERSON. I will try to do that by next week.

[The information referred to was not provided to the subcommittee.]

Senator BRADLEY. All right. I have no other questions on this subject.

Senator NICKLES. Mr. Chairman, thank you. Mr. Patterson, thank you.

Senator BRADLEY. Thank you, Senator Nickles.

So we will hear from you as to how long this is going to take by next week. Thank you.

Mr. PATTERSON. Yes.

Senator BRADLEY. The sooner, the better, Mr. Patterson. Senator Nickles is interested in this. I am interested in this.

Now, the second bill, S. 2657.

STATEMENT OF ROGER K. PATTERSON, REGIONAL DIRECTOR, GREAT PLAINS REGION, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ON S. 2657

Mr. PATTERSON. The second bill is S. 2657, which would direct the Secretary to undertake certain studies to investigate wastewater reclamation and reuse, to conduct studies of groundwater and other purposes.

The consideration of wastewater reuse and groundwater management is part of the total water management program for any area, as provided for in the bill, and is a concept that we recognize and support.

In many areas both wastewater and groundwater are a vital component of the overall water needs and need to be considered in any study that is undertaken.

We do believe, however, that the Secretary already has sufficient authority to conduct such studies. And that efforts in this area need to be considered along with other priority needs, particularly in the times of limited budget dollars.

As part of the Department's ongoing program, Reclamation has initiated this year, in fiscal year 1990, and we have proposed to initiate in fiscal year 1991, a number of study activities under our general investigation program which we believe relate to the kinds of studies and information that would be undertaken as part of this bill.

We are looking at things such as consumptive use of agriculture crop water. We are looking at new and innovative water conservation methods. We are looking at the overall operational efficiency of systems. We are looking at the conjunctive use of groundwater and surface water. And we are also looking at ways in which we can improve water quality and provide for environmental restoration as part of the management of the projects.

We are also looking at a number of things in our research program in 1990, and proposing in 1991, which we believe relate to this area.

You are aware, Mr. Chairman, of our ongoing Groundwater Recharge Demonstration Program, which is looking at some very promising opportunities in this area.

To conclude, we recommend that the Secretary be permitted to structure and develop the research and planning process so that we can use all of the options that we have. It is for that reason that we believe that the legislation is not necessary.

[The prepared statement of Mr. Patterson on S. 2657 follows:]

PREPARED STATEMENT OF ROGER K. PATTERSON, REGIONAL DIRECTOR, GREAT PLAINS REGION, BUREAU OF RECLAMATION, DEPARTMENT OF THE INTERIOR, ON S. 2657

Mr. Chairman, I am pleased to appear before the Subcommittee on Water and Power to express the Administration's views on S. 2657, a bill to direct the Secretary of the Interior to undertake certain studies to investigate opportunities for wastewater reclamation and reuse, to conduct studies of groundwater, and for other purposes.

While the Administration recognizes that both wastewater reuse and enhanced groundwater management may indeed play a role in meeting some areas overall water resources needs, the Secretary already has sufficient authority to conduct such studies and would prefer to review their relative priority in the context of all available water supply options, particularly in these times of limited funds. Thus,

we find no basis for supporting legislation now that would direct investigations in these areas.

As part of the Secretary's ongoing activities, Reclamation initiated in fiscal year 1990 and proposes to initiate in fiscal year 1991 study activities under the General Investigation program which will investigate ways to reduce the consumptive water use of agricultural crops, study new and innovative water conservation methods, improve the operational efficiency of existing water projects, improve and expand the conjunctive use of ground and surface water to meet future demands, improve environmental considerations in developing and managing water project, and improve water quality. Further new research studies Initiated in fiscal year 1990 and proposed research studies to be started in fiscal year 1991 include reuse of waters of impaired quality (grey water); water augmentation; and water supply and demand effects of climatic change.

Also, Mr. Chairman, you are familiar with our on-going Groundwater Recharge Demonstration Program, which is pursuing a number of promising recharge opportunities.

In conclusion, we recommend that the Secretary be permitted to structure the research, development and planning programs of the Department to meet contemporary needs in a flexible, more cost-effective manner which utilizes all of the many options available at this time. It is for these reasons that we believe the legislation currently before the committee is unnecessary.

Senator BRADLEY. Let me thank you very much for your testimony. And although your lips are saying no, no, no, your eyes are saying yes, yes, yes.

[Laughter.]

Senator BRADLEY. In this process it is very important to be able to read a witness. That is what I am doing. I am reading the witness very carefully.

Now you have said that everything is just fine. You have got a lot of studies underway. Will you describe each of the wastewater reclamation and reuse opportunities in California now being studied?

Mr. PATTERSON. I probably cannot provide the specifics there, but I will say that we have in our program, and we have proposed in the 1991 program, just in Federal dollars, almost $3 million to look at groundwater and water quality, including some reuse opportunities. So it is a significant amount of the effort that we have underway and that we are proposing.

Senator BRADLEY. If you cannot identify them in California, what about in Arizona or Nevada?

Mr. PATTERSON. The studies that we are proposing? We have——

Senator BRADLEY. What about in your region, Great Plains?

Mr. PATTERSON. We have the studies that are underway in the Arkansas Basin that are basically a water quality effort.

Senator BRADLEY. But specifically on wastewater reuse and reclamation.

Mr. PATTERSON. We have the effort under way as part of the Oakes Test Area in North Dakota, which is a reuse of irrigation return flow, particularly for wetland development and enhancement and looking at that as a chance to clean up that water. We have that under way in our region.

Senator BRADLEY. Is that a feasibility study?

Mr. PATTERSON. No, that is part of the Garrison Project and it is actually being carried out under the construction program.

Senator BRADLEY. Let me ask you, do you have any suggestions on how to address public health concerns related to wastewater?

There are any number of places where although one might want to reuse wastewater, some people will have concerns about health. Others will say that any risk is not serious. Do you have any thoughts?

Obviously, a proposal to reuse water for agriculture is a little different than if you'd propose to drink it. Or if you reuse it for industrial purposes, it is a little different than if you drink it. But, in any case, we will need to investigate the health concerns. So what do you think?

Mr. PATTERSON. I believe that the process we go through, which is a public process, whether or not you are looking at reuse for industry, agriculture, or as drinking water, it is a public process so that those kinds of things can be dealt with. Particularly, I think, if you are looking at reuse from a drinking water standpoint, you would have to involve those agencies that have that kind of responsibility. There is a perception that is associated with that. It has to be dealt with in that public process, which is the process that we used, and make the decisions based on the input that you get.

Senator BRADLEY. Do you see any value for this in terms of benefiting fish and wildlife?

Mr. PATTERSON. I do. I think there are—I mentioned the Oakes Test area earlier. There is an example of that. I know that we have a couple of small project loans that are looking specifically at that, that are proposed in the program. Those are in Southern California. So, yes, I do.

Senator BRADLEY. Are you aware of any water reclamation and reuse opportunities that deserve to be studied, but are not included in the bill as it is now drafted?

Mr. PATTERSON. The bill, as drafted, only discusses a couple of specific opportunities. I guess I read the bill to provide broad authority to look at those kinds of things. We have not carried out any extensive assessment of where those opportunities are. But I do believe that as we look at any basin or any area as part of our planning program, that is something that we would take into account as we looked at that area.

Senator BRADLEY. But one place where you clearly have this coming to a real head is in California?

Mr. PATTERSON. That is my understanding, yes.

Senator BRADLEY. And so would there not be a number of places in California where this might be a very beneficial use of study dollars, given the pressure on water supplies?

Mr. PATTERSON. I think that is probably true in areas where the cost of water is such that these kinds of reuse fit into the picture, and I am sure that there are many of those in California.

Senator BRADLEY. Do you think, for argument's sake, that we ought to do one in maybe the south, one in the north, one in a couple of other places related to the Valley might be helpful, related to San Francisco Bay, related to Colorado River pressures in the south?

Mr. PATTERSON. I know that there have been some discussions held. And it is something that we will be looking at, I am sure, as we put the proposal together.

Senator BRADLEY. Do you find all three of those areas to be productive areas of investigation?

Mr. PATTERSON. I would think those would be the kinds of areas, yes.

Senator BRADLEY. I would recognize Senator Conrad, if he has any comment to make.

Senator CONRAD. No. Thank you.

Senator BRADLEY. Mr. Patterson, I want to thank you for your testimony. Again, I know that in this time it is important that we look each other in the eye. That is what we have just done here.

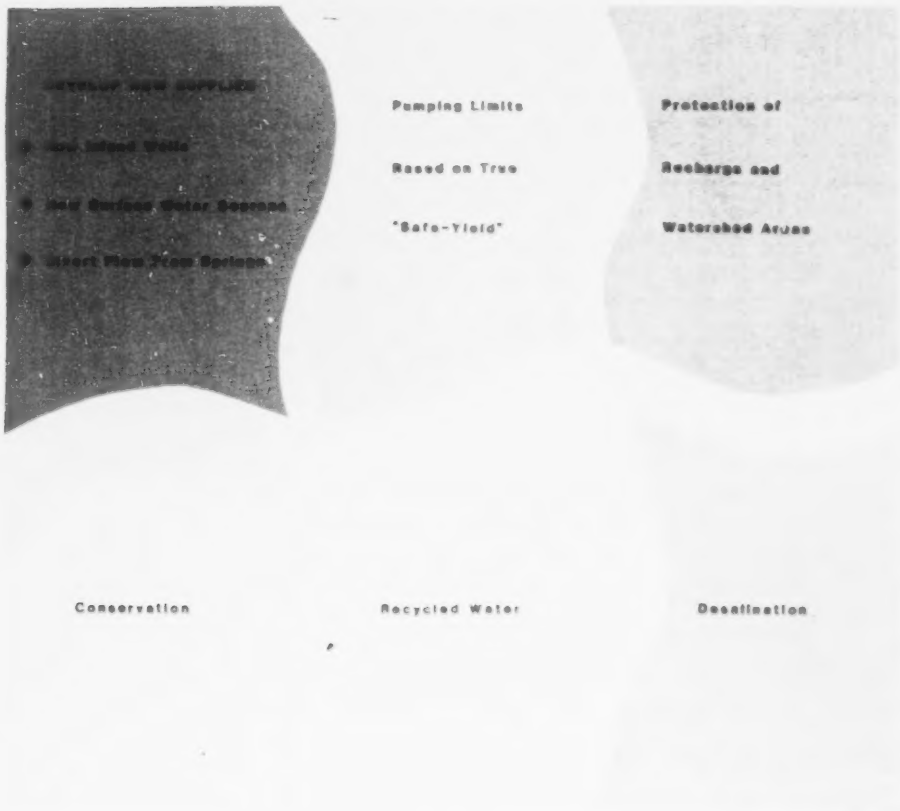
You can tell OMB I enjoyed the testimony, but I still like your eyes better.

Thank you very much. The committee is adjourned.

[Whereupon, at 10:40 a.m., the hearing was adjourned.]

APPENDIX

Additional Material Submitted for the Record



St. Petersburg Northwest Plant

Responsible Recycling

William Johnson

A practical approach to developing and operating a successful urban irrigation system using recycled wastewater

Florida is a water paradox. It receives an average of 55 inches of rain annually, the second highest of any state in the country. For the most part, it is underlain by the Floridan Aquifer, one of the largest and most productive ground water sources in the nation. Yet several areas in Florida are experiencing periodic water shortages, and many Florida communities are scrambling to provide an adequate water supply for its residents. Why is this?

Of the 55 inches of rain received each year in the Tampa Bay area, nearly half falls during the months of June, July, and August. Approximately 40 inches of the 55 inches are lost to evapotranspiration, leaving a balance of 15 inches available for use. Unfortunately, because of Florida's flat topography, there is little opportunity to impound water as a water supply source. Thus, a majority of the remaining 15 inches becomes runoff, eventually flowing into the Atlantic Ocean and the Gulf of Mexico.

We also have to consider that almost 1000 persons each day make Florida their new home. The water supply problem is further compounded because the majority of the new residents choose to live in coastal areas where the groundwater supply is most limited because of saltwater intrusion.

Growth brings other water supply problems. Development alters drainage patterns which adversely affect recharge. Also, many wetlands have been destroyed. Finally, contamination of the groundwater is becoming a serious problem. Several communities have lost their water supply due to contamination and others are threatened.

As you can see, there are many pressures on Florida's water resources. This paper will discuss how one coastal Florida community, the City of St. Petersburg, has met the challenge of providing an adequate water supply for its citizens and, at the same time, implemented a precedent-setting program.

The St. Petersburg Experience

St. Petersburg is a gulf-coast community of approximately 250,000 persons. It is Florida's fourth largest city. The City experienced rapid expansion during the period between 1950 and the mid-1970's. It was also providing water services to four other growing communities. The City's water supply was becoming stressed. In order to appreciate the difficult position the City faced, the following is a brief review of the City's efforts to meet its water needs for over 50 years.

Geographically, the City of St. Petersburg is located on a peninsula. It is bordered on its eastern, western, and southern sides by saltwater, and by incorporated communities on its northern boundary. Hydrologically, St. Petersburg is an island, with no significant streams or groundwater suitable for a water supply within its corporative limits.

By 1900 the municipal wells located in St. Petersburg were being pumped for increasingly longer intervals because of a growing population. By the mid-1920's, chloride in the ground water began to increase due to saltwater intrusion. Realizing that it was facing a potential water crisis, the City entered into a contract with a private company to provide St. Petersburg with a new water supply. The company purchased a section of land in adjacent Hillsborough County, developed a wellfield, constructed a water plant, and laid approximately thirty miles of 36-inch water main from the water plant to a water repumping station the company had constructed north of the City. At that time, it was a massive project.

In the early 1940's, St. Petersburg purchased the company's assets, including a second undeveloped section of land in Hillsborough County, as well as Weekie-Wachee Springs, located in Hernando County. The water company bought the springs with the intention of utilizing it as a water source at some future date when it would be more cost-effective. The spring is located over sixty miles from St. Petersburg. A major tourist attraction has been developed at the spring.

By the early 1960's, the unused property in Hillsborough County was developed into what is now known as the Section 21 Wellfield. A second repumping station, and a new 48 inch, - thirty mile long pipeline were constructed.

Recycling, reclaiming, reusing, and recovering, are all terms generally used to describe the utilization of wastewater for irrigation and certain industrial applications. Many factors must be incorporated when a community is considering implementing a wastewater reuse program. A successful program will be dependent upon the ability of the treatment facility to consistently produce a high quality product. Of primary concern will be the design, construction, operation, and monitoring of the treatment facility.

In the late 1960's, a third property was purchased and developed as a wellfield. It was a section of land located approximately 40 miles from St. Petersburg in Pasco County.

The Water Wars

St. Petersburg now owned substantial blocks of land in three counties. The counties became alarmed that they might not be able to provide adequate water for their own growing populations because of St. Petersburg's water withdrawals.

When St. Petersburg joined with Pinellas County in the early 1970's to develop another wellfield in Pasco County, Pasco, Hillsborough and Hernando counties joined together to have legislation enacted to block any future water development by municipalities outside of their jurisdiction. The period of 1970 through 1978 is known as the "water-war" years. A regional water supply agency was eventually formed and will be discussed later in this paper.

St. Petersburg faced a twofold problem in the early to mid 1970's. First, it needed additional water, but it was becoming uncertain if permission could be obtained to develop a new supply. Because of costs, ecological concerns, and the possibility of worsening the already strained relations with other counties, the development of Weeki Wachee Springs as a water supply source for the City was not considered a workable alternative. One option was to drastically reduce its future water demand. Secondly, because of rapid growth, the City's four wastewater treatment plants needed to be enlarged. At that time, regulations were adopted by the State of Florida requiring that effluent from wastewater treatment plants in the Tampa Bay area be treated to advance levels, including tertiary treatment and nutrient removal prior to discharging to surface waters, or the discharge must cease.

Recognizing that turf irrigation is a major water-consuming activity in Florida, especially during the dry spring months when groundwater levels are usually at their lowest point, St. Petersburg decided to take a very innovative and bold step to solve its water supply and wastewater treatment problems. It would upgrade and expand the wastewater treatment plants to tertiary treatment, but would not remove nutrients. It would then cease discharging to surface waters by using the highly treated effluent as irrigation water for recreational areas and businesses by means of a secondary or "reclaimed water" piping network. Deep injection wells would be constructed as a backup system whereby effluent could be pumped into the saltwater aquifer underlying the peninsula

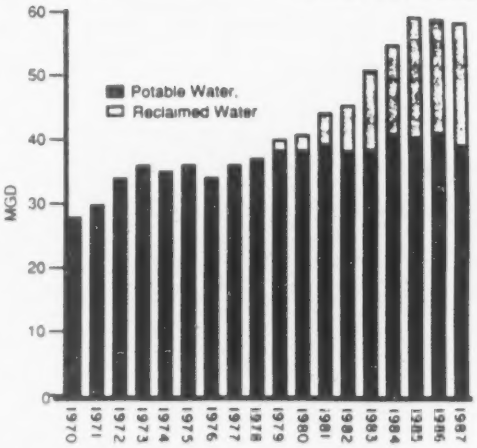
when the demand for reclaimed water fell below the plant discharge rate and storage capability.

This was a very bold proposal in the early 1970's. Up to that time, no major community had considered undertaking the development of an urban irrigation system using recycled wastewater on such a large scale. And there was no confirmation that deep injection wells would work in the area.

From 1977 through 1987, St. Petersburg spent over $100 million upgrading and expanding the four wastewater treatment plants and constructing over 200 miles of reclaimed water piping. This includes a recently constructed system expansion that now provides reclaimed water for residential areas within the City that have been declared "water quality critical". These are locations where shallow groundwater wells will not produce adequate water for lawn sprinkling, or the water quality is unsuitable. The only alternative is to use potable water for lawn irrigation which is both very expensive and poor utilization of a limited resource.

In 1987, almost 20 million gallons of reclaimed water were used each day for irrigation purposes by over 5,000 customers. By the year 2000, it is estimated that St. Petersburg's reclaimed water system will have the potential to serve approximately 17,000 customers and irrigate almost 9,000 acres.

St. Petersburg's recycling system is vital to helping the City meet its long-term water needs. The value of the system is readily illustrated when comparing our future water needs with and without the reclaimed water product.



Problems by 2020

In 1987, the West Coast Regional Water Supply Authority, an agency formed as a result of the "Water Wars" and charged with the responsibility of developing new water supplies for several Tampa Bay area counties and communities, including St. Petersburg, prepared a Needs and Sources Report. It projected that by the year 2020, if a 20-year drought occurred, and if reclaimed water was not available for irrigation, the City could anticipate a 23 mgd shortfall on a maximum demand day. However, if reclaimed water were expanded to its full potential by that time,

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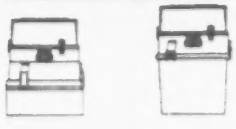

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instead of a 23.0 mgd shortfall, the city wouldhave 1.0 mgd remaining capacity, even at greatly reduced withdrawal rates. In the water-critical Tampa Bay area, where water is a limited resource with potentially strong political overtones associated with any water development effort, the importance of the City being able to satisfy its water needs indefinitely with existing resources cannot be overemphasized.

Cost is another concern. If new water sources are developed, water will be expensive since it would have to be pumped from far inland or, alltematively, desalinization facilities would have to be built. As additional benefits, expansion of the existing 68 MGD lime softening plant and construction of a third major transmission line probably will not be needed because additional potable water will not be required.

The success of the St. Petersburg reuse program has provided an example for other communities to undertake similar programs and encourages the regulatory agencies to approve large scale reuse programs involving residential irrigation. Representatives from environmental and health agencies representing many foreign nations have visited St. Petersburg to inspect and discuss the City's reclaimed water system.

St. Petersburg now finds itself in a unique position. It operates the largest urban irrigation system in the world using a reclaimed water product as the water source. All spray sites are located over a non-potable, brackish aquifer. The City's wellfields are located more than 30 miles hydrologically upstream from the spray sites. However, Hillsborough County, where two of the three major wellfields serving St. Petersburg are located, is planning a major effluent spray field/wetlands augmentation project on land adjacent to St. Petersburg's wellfields. What is St. Petersburg's position about Hillsborough County's plans?

If Hillsborough County implements a "Responsible Recycling" program similar to St. Petersburg's program, then we are not objecting to their plans.

What is "Responsible Recycling"?

After being associated with St. Petersburg's highly successful program for almost six years, and combining that association with almost thirty years of wastewater operations experience, I have concluded that the following criteria must be implemented if wastewater reuse programs are to gain increased public acceptance through safe and reliable performance.

First, the recycled water system must be readily identifiable. St Petersburg color-codes all PVC piping, using blue for potable water, green for sewer force mains, and brown for reclaimed water; all buried ductile iron piping is affixed with a coded brown tape to denote it as part of the reclaimed water system; fire hydrants are located throughout the system and are color-coded with a brown stem and yellow cap. Hydrants are needed to periodically flush lines and serve as a back-up for fire suppression; valve box covers are shaped differently than potable water system valve box covers; all customers using reclaimed water must have an in-ground irrigation system, and no hose bibs are permitted at any point in the irrigation system; backflow prevention devices have been installed at every potable water system meter wherever reclaimed water is available. Finally, comprehensive rules and regulations governing connection to and usage of the system have been adopted by the City.

The next matter is, in my opinion, of even greater importance than the previously mentioned items. It concerns the ability to deliver a high-quality product water on a continual basis.

The wastewater treatment facility discharging into a reclaimed water system must be designed, constructed, operated and monitored in the most responsible manner possible. Items that must be provided are:

1) An advanced treatment facility that is adequate to handle all projected hydraulic and organic loadings. It should also have the capability for chemical addition at various points in the plant to enhance process control.

2) The plant should meet Class I reliability and have a great deal of operational flexibility to rapidly change operating modes.

3) It should be staffed at all times with operators holding advanced certification in charge of each shift.

4) An effective pretreatment program should be established so that harmful chemicals do not enter the wastewater collection system and possibly reach the spray sites.

5) The effluent quality should be monitored 24 hours per day, 7 days per week.

Another consideration is that when irrigating near a water supply aquifer, it must be confirmed that the hydrogeology of the spray site is amenable (i.e., no fractures or sinkholes). A survey using ground-penetrating radar is one method used to evaluate a potential spray site.

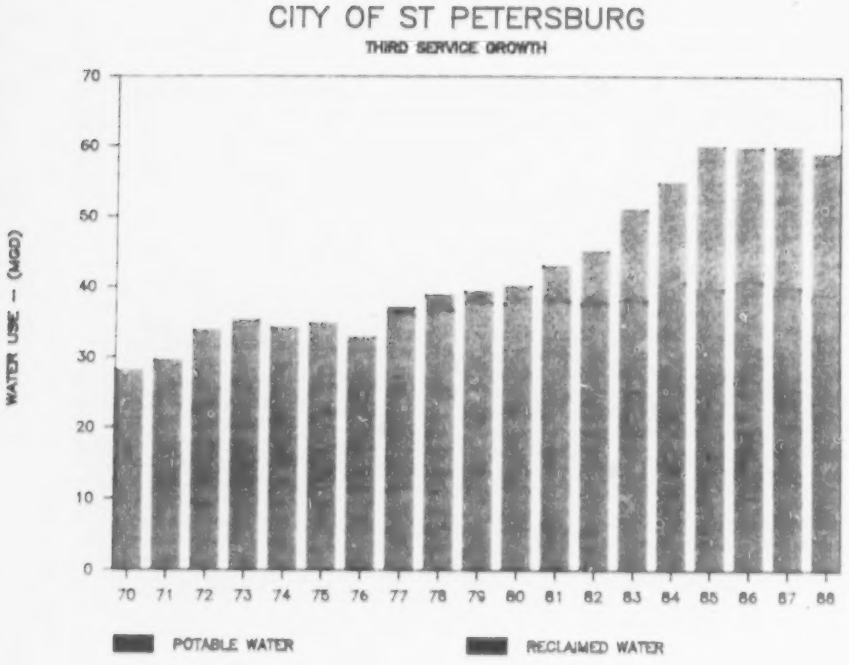
Of primary concern is the expertise and dedication of the operational staff. The importance of capable operations personnel cannot be overemphasized.

Our new plants are state-of-the-art. They literally "manufacture" water. A key to the future success of this city's or any city's reclaimed water program is enhanced operator awareness. Wastewater operators must consider their responsibilities as similar to water plant operators. In addition to being concerned about BOD and suspended solids removal, they must think in terms of turbidity, priority pollutants, total and fecal coliform levels, and the other parameters typically monitored in water treatment plants. This is especially critical when a staff has been involved in the transition of a plant from either primary or secondary treatment to complex tertiary treatment.

Regulatory agencies need to recognize that an approved alternate method of discharge must be available when irrigation demands are less than product availability, or when effluent quality temporarily falls below the established criteria for the reclaimed water product. Although deep injection wells are provided in St. Petersburg, their construction will not be possible in many communities. Surface water discharge will often be the only viable alternative. During these periods, a higher level of treatment may be required (i.e., nutrient removal) which, in turn, will necessitate an operational staff that can rapidly adjust the plant's operating mode from one process to another. Also, problems within the collection system may adversely impact plant performance and the operational staff will be required to respond without delay. The staff must always remember that the quality of the product going into the reclaimed system is of first importance. Again, an alternate point of discharge is necessary.

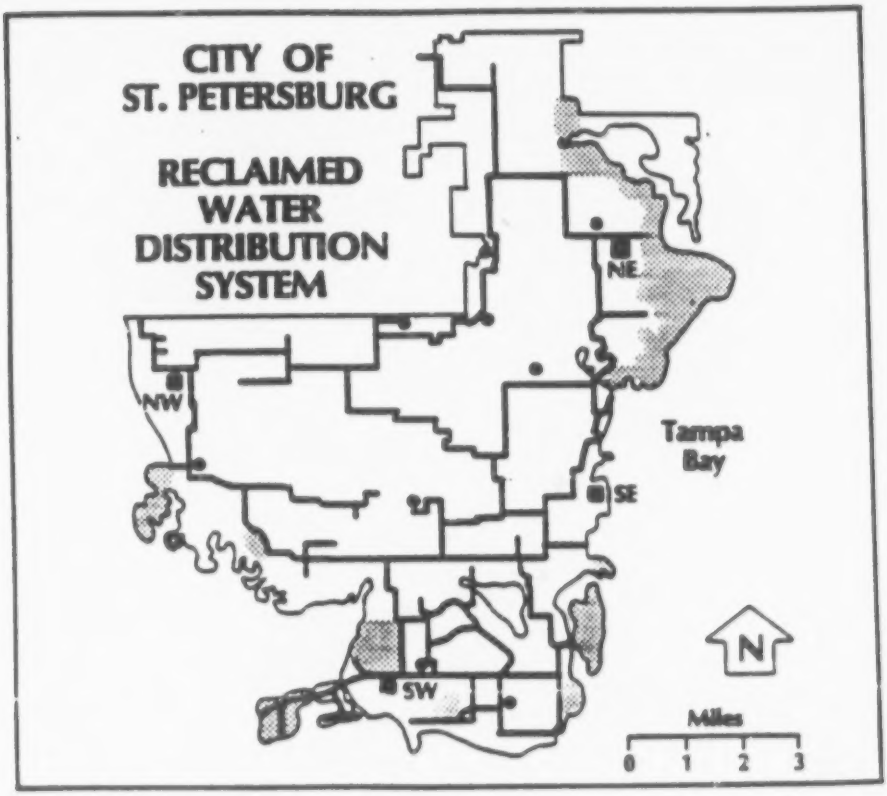
If wastewater is considered a valuable resource requiring proper treatment and handling by qualified technicians at all times, with uncompromised quality control, the public will accept reclaimed water with a high degree of confidence.

William D. Johnson is Director, Public Utilities Department, City of St. Petersburg

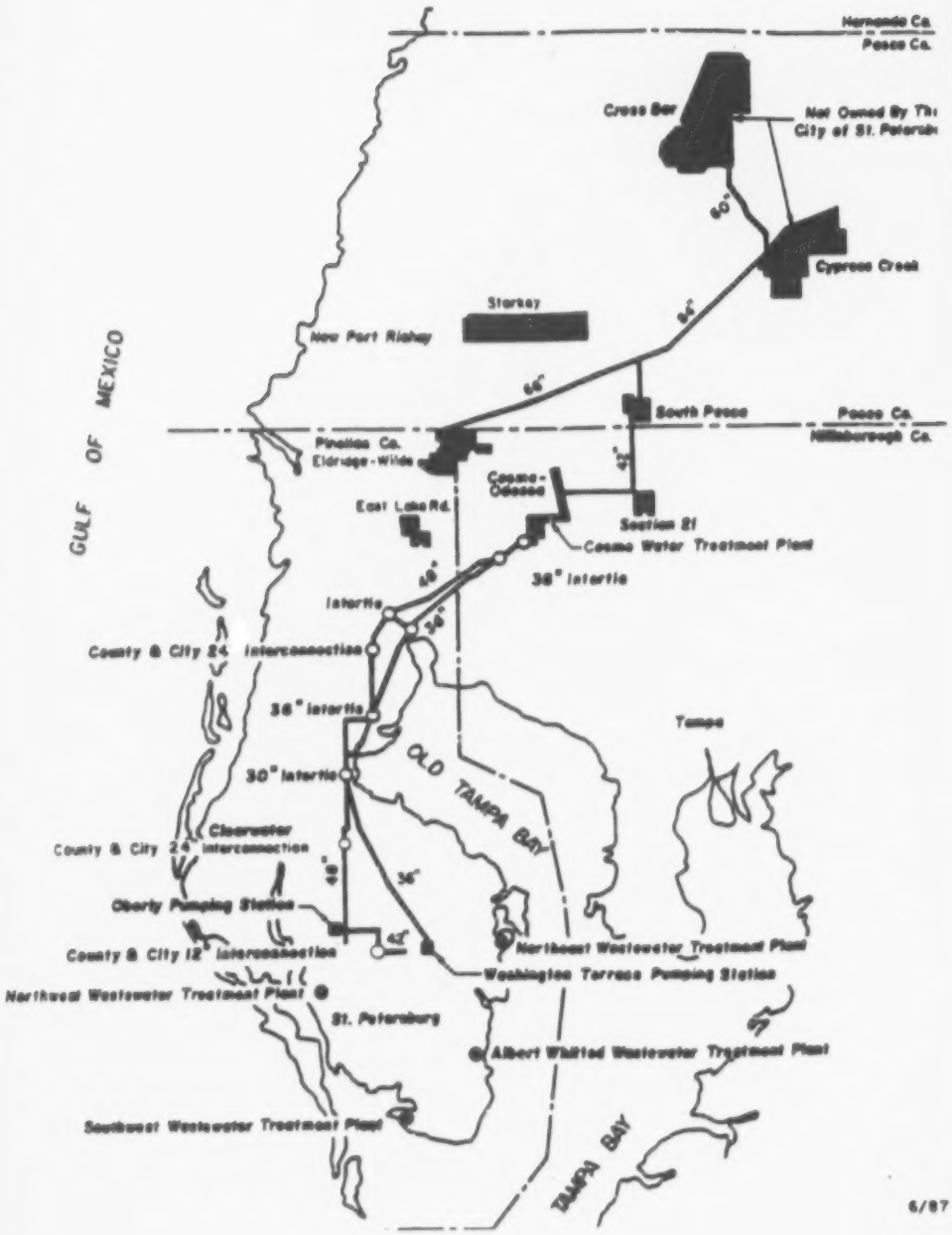


RECLAIMED WATER STATISTICS

	'81	'82	'83	'84	'85	'86	'87	'88
RECLAIMED WATER PUMPED (MGD)	5.0	7.5	13.0*	14.0	20.0	18.9	19.8	20.3
TOTAL NUMBER OF RECLAIMED WATER CUSTOMERS	123	414	610	904	3100	4964	5356	5871
RESIDENTIAL	11	291	472	761	2927	4720	5107	5616
COMMERCIAL / INDUSTRIAL/OTHER	112	123	138	143	173	244	249	255
MILES OF [illegible] E (ALL SIZ[illegible])	72	90	94	142	190	228	228	228
POTABLE WATER PUMPED (MGD)	38.3	37.9	38.3	41.1	40.1	41.0	40.2	38.7


CITY OF
ST. PETERSBURG
RECLAIMED
WATER
DISTRIBUTION
SYSTEM
NE
NW
SE
SW
Tampa
Bay
N
Miles
0 1 2 3

City of St. Petersburg
Distribution System & Waste Water Treatment Facilities



6-B — The Tampa Tribune 3/14/87

Alternative water sources called key in meeting demand

By STEVE HUETTEL
Tribune Staff Writer

Panelists stressed that cooperation is a must between state officials and residents as the Bay area population continues to swell.

TAMPA — Yes, there will be enough water for everybody, even as hordes of new residents plant their roots in the Tampa Bay area.

But no, it won't happen without some changes in attitudes and innovative thinking.

That was the message passed along Friday to about 170 local consultants, business leaders and government officials at a water conference hosted by the Greater Tampa Chamber of Commerce.

The 1.8 million people in Hillsborough, Pinellas and Pasco counties use an average of 450 million gallons of water daily. Those figures are expected to jump to 2.7 million people and 600 million gallons by 2020, panelists said.

Making the supply meet the demand, the panelists said, hinges on protecting current water sources, finding new ones and having cooperation among different areas and competing users.

"We're all in this together," said Michael Zagorac, chairman of the Southwest Florida Water Management District, which regulates water usage in 16 counties including those in the Tampa Bay area.

"Agriculture, industry and public supply must acknowledge we're all in the same boat. If there is competition between users, nobody is going to win and the resource will lose."

Cooperation among state regulators and those they regulate was a theme struck by state's chief of the Department of Environmental Regulation.

"The developers are the cities and counties and the DOT (Department of Transportation) — everyone who's changing the landscape," said Dale Twachtmann.

"It isn't somebody out there who's easy to dislike. We all drive on the roads and live in the houses."

He also made a pitch for a popular topic at the conference: using treated sewer water — "recovered water" — for crop irrigation and augmenting ground water or even drinking water supplies.

"You don't even have to take it back to potable uses," Twachtmann said. "When that water is used, it saves ground water for better and higher uses."

Tampa is now conducting a $3.6 million project to super-sanitize waste water from its Hooker's Point treatment plant, pump it into the Tampa Bypass Canal and then into the Hillsborough River, the city's main water supply.

St. Petersburg for years has had a reclaimed water system for irrigating lawns, golf courses and parks.

"Our system is our fifth well field," said William D. Johnson, director of the city's Utilities Department. "It produces 20 million gallons a day. Without this system, we would be in great trouble."

Panelists discussed two other alternative water sources. Reverse osmosis, pumping salt or brackish water through a filter to get fresh water, is a proved but expensive method, they said.

And other locales, panelists said, pump fresh water into the underground aquifer during wet periods and pump it back out in the dry season.

The other component of assuring future water supplies is protecting current sources from pollution, Twachtmann said.

Toward that end, he pledged to beef up his department's drinking section and promote efforts for cleaning up leaking gasoline storage tanks and establishing hazardous waste transfer stations around the state.

Population growth tops in Florida

By JOHN VAUGHAN
Tribune Staff Writer 8/28/90

TALLAHASSEE — Florida's population hurricane appears likely to deliver four new seats in Congress to the state now positioned as the nation's fourth-largest with more than 12 million people, preliminary census figures showed Monday.

The U.S. Census Bureau released early 1990 estimates for six states to compare with their 1980 figures, and Florida's 31 percent growth outpaced that of the U.S. population leader, California. The Sunshine State grew from 9.7 million people to almost 12.8 million in the past decade, while California grew 24 percent from 23.7 million to 29.3 million.

Census officials emphasized the figures are not final and are public only so state and local leaders can dispute the bureau's maps and block by block counts if warranted. Other states received their numbers earlier and only four await figures promised by Wednesday.

"Each state has 15 days to review and give us evidence of anything they think we missed or got wrong," a census spokeswoman said Monday. "It's speak now or forever hold your peace."

Final counts are due to President Bush by Dec. 31.

Dade County, like California's Los Angeles County, is reportedly likely to challenge the early numbers that show it home to 1.9 million people. Overall, demographers said, the figures for Florida and California are closer to earlier bureau estimates than in other cases.

Jon Peck, spokesman for Gov. Bob Martinez, said the Monday report confirms "we're big and we're growing" but, "What will be far more important is how our population fits in the final national picture and what that means for federal spending in Florida and other benefits."

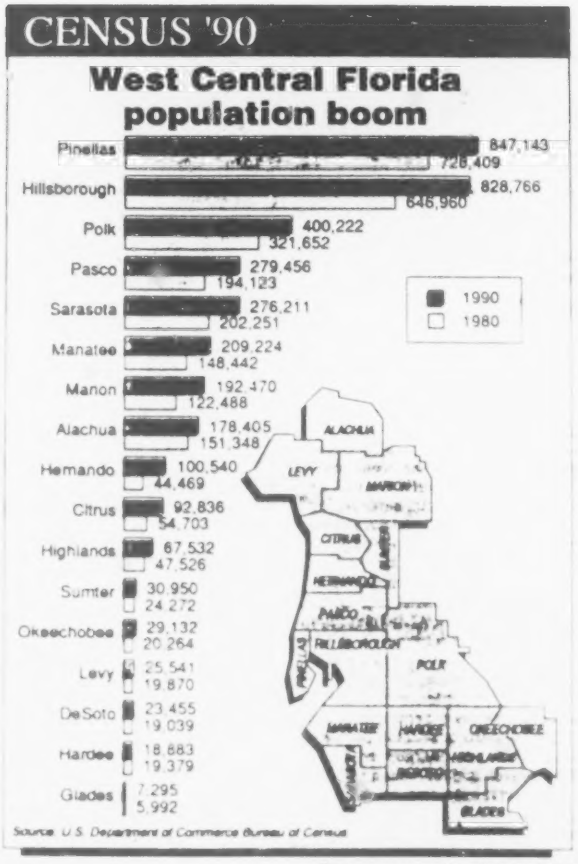
If there's one thing that's undisputed it's that politically, the gains by Florida and California increase the importance of their races for governor this year. Democrats have majority control of both states' legislatures, so Republicans need to hold both governorships to have any influence over the electoral redistricting process that will follow this census.

Demographer Kim Brace said Monday's figures show California is in "much better position" to pick up the seven seats in Congress it hoped for, while Florida appears ready to grab four.

Florida's four would be equivalent to adding the entire House delegation from Arkansas and would give the state 23 representatives in Washington. For California, seven more would be equivalent to adding the Alabama delegation and would result in 52 representatives from the Golden State — about one in every eight House members.

Florida did not even rank among the top 20 states in population until 1950. By 1980 it had moved to seventh; in 1990 it is likely to rank fourth, behind California, New York and Texas.

Information from Tribune wire services was used in this report.



Tribune map by VAUGHN HUGHES

PREPARED STATEMENT OF JUDY STABILE, COUNCILMEMBER, CITY OF SAN JOSE, CA

Mr. Chairman, thank you for the opportunity to appear before this Committee today. The City of San Jose is very encouraged by the positive nature of this bill and the support it offers for waste water reclamation. We feel that this type of legislation will help to provide answers to the many critical water questions in the west and specifically in the San Francisco Bay Area. As a result, we strongly support S. 2657 and urge its passage during these last days of the 101st Congress.

Virtually the entire state of California has water management questions that will require innovative answers, and Santa Clara County in South San Francisco Bay has a wide mix of water related problems . . . typified by the concurrent drought and wastewater crises facing San Jose.

The drinking water supply for San Jose comes from three sources . . . local groundwater, the State and Federal Central Valley Project surface water supply, and the San Francisco Hetch Hetchy project. The surface water supplied by these projects is treated and served to the majority of the population in San Jose. The Central Valley Project water is supplied from the Sacramento-San Joaquin Valley delta through the U.S. Bureau of Reclamation Delta Mendota Canal and Pacheco Tunnel. Most potable water to San Jose eventually ends up as influent to the City of San Jose's water pollution control plant, and it is treated to a very high degree (tertiary treatment) before being discharged to the southern end of San Francisco bay.

The water crisis facing San Jose has several facets: water demand continues to increase in the San Jose area because of increasing population; local supplies are fully utilized, and no new water supplies are available in this area. Further, there is no realistic potential for increasing imported water supplies. At the same time, California is experiencing the longest drought in our recorded history. The statewide emphasis is on reducing rather than increasing demand.

The City is also faced with intense pressure from the State Water Resources Control Board to reduce the amount of the treated wastewater discharged to San Francisco Bay because of the alleged conversion of salt water marsh to fresh water marsh.

There is an increasing need for recharged groundwater in Santa Clara County. San Jose has a historic ground subsidence problem. In order to control that problem, recharge basins are operated in the county to provide conjunctive use of the ground water and surface water. If we can develop a wastewater reclamation program, we can both reduce the amount of discharge to the bay and augment our water supply. We are investigating beneficial uses such as landscape irrigation, industrial uses, groundwater recharge, and stream flow augmentation . . . a process which may actually create or increase the amount of wetlands in our area.

We sincerely appreciate your interest in this matter and will work actively with you and your staff to assist you in any possible way.

PREPARED STATEMENT OF RICHARD ATWATER, GENERAL MANAGER, WEST BASIN MUNICIPAL WATER DISTRICT

Chairman Bradley and members of the subcommittee, thank you for providing me the opportunity to testify on S. 2657, the "Reclamation Wastewater and Groundwater Act." The West Basin Municipal Water District supports the enactment of S. 2657.

West Basin firmly believes that a major component of a solution to Southern California's long term water needs lie in a policy that takes a more active role in waste water reclamation and treatment. And, though there are clearly huge benefits on the water supply side, there is also a very real benefit to handling our waste water more responsibly. The District views S. 2657 as a major step in that direction.

The West Basin Municipal Water District, located in the "South Bay area" of Los Angeles County, California, was formed in 1947 and joined the Metropolitan Water District of Southern California as a member agency in 1948. Eighteen cities lie within the boundaries of the District. The current population of the District's service area is approximately 850,000.

The West Basin Municipal Water District has initiated a program to reclaim as much as 70,000 acre-feet per year of wastewater from the City of Los Angeles' Hyperion Treatment Plant. When implemented, this would be the largest water reclamation project in the State of California. The communities within the West Basin Municipal Water District which would be served by the project include El Segundo, Inglewood, Hawthorne, Lawndale, Manhattan Beach, Hermosa Beach and Redondo Beach. The cities of Los Angeles and Torrance may receive reclaimed water from the project as well.

However, this new water supply will help to relieve pressure on the limited dependable supplies for all of Southern California and significantly reduce the amount of waste water released into Santa Monica Bay.

Although West Basin's program to reclaim waste water for the Hyperion plant is a major reduction in the waste water pumped into the Bay, S. 2657 holds the potential to do much more in that regard. The population growth in the South Bay has already forced many municipal planners to consider enlarging existing waste water treatment plants and programs for waste water reclamation. Programs like West Basin's should be planned to offset those increases.

Southern California is experiencing an increasing shortage of dependable water, with little hope of that situation changing. The Metropolitan Water District of Southern California supplies approximately 60% of the area's needs with imported water from Northern California and the Colorado River. In addition, the City of Los Angeles imports water from the eastern slopes of the Sierra Nevada Mountains. All three of these sources have become increasingly less dependable resulting in inadequate supplies to meet Southern California's current and protected water demands.

California is in its fourth consecutive year of drought which has tended to compound the problem of decreasing imported supplies. The need to conserve existing water supplies and develop new sources is particularly important in the Southern California area where population and industrial expansion have stretched existing water supplies to the limit. One alternative source of water which is receiving increasing attention is water reclamation.

It is clear that wastewater reuse and water reclamation will become increasingly critical elements in solving California's complex water resource problems.

WEST BASIN WATER RECLAMATION PROGRAM

The West Basin Municipal Water District has developed a general strategy for implementing a 70,000 acre-feet per year water reclamation program. The concept has been explored by West Basin Municipal Water District since the late 1940's. The technology, regulatory climate, water supply situation, and public and corporate acceptance have coalesced into making now the time to implement this program. Currently, West Basin Municipal Water District purchases 190,000 acre-feet per year of supplemental water from Metropolitan. The West Basin Reclamation Program would reduce West Basin Municipal Water District's demand for Metropolitan supplies by 70,000 acre-feet per year. Metropolitan will then be able to make this conserved yield available to the City of Los Angeles to replace their lost supply from Mono Lake. The West Basin Reclamation Program proposes to divert approximately 62.5 million gallons per day of secondary treated wastewater from the City of Los Angeles' Hyperion Treatment Plant for further treatment and reuse. An additional environmental benefit of the West Basin Water Reclamation Program, if fully implemented, would be the reduction of the Hyperion secondary treated effluent being discharged to Santa Monica Bay. The 70,000 acre-feet per year project would reduce the wastewater flow to the Bay by about 15 percent.

Three different types of users requiring three different treatment schemes have been identified.

Greenbelt Irrigation, 17,000 AFY;
Oil Refineries, 23,000 AFY;
Barrier, 30,000 AFY;
(groundwater replenishment)

Irrigation—A number of smaller irrigation and industrial users have been identified within the Program's service area. Irrigation users include California Department of Transportation, golf courses, parks, school grounds, a race track and a cemetery. This type of reuse is widely practiced throughout Southern California.

Oil Refineries—Two major oil refineries are located in the Program's service area, the El Segundo Chevron refinery and the Torrance Mobil refinery. The major use of reclaimed water at the refineries would be for cooling tower makeup water, but reclaimed water may also be used for boilers, landscape irrigation, and other uses. Use of reclaimed water in the refinery is also not a new concept. The East Bay Municipal Utility District, of the San Francisco Bay Area, has a project in final design which will deliver 5,000 acre-feet per year of reclaimed water to the Chevron refinery in Richmond, California.

Barrier—The single largest user identified is the West Coast Basin Barrier Project which injects water into the West Basin coastal aquifer to mitigate salt water intrusion. This aquifer serves as a major source of water for many coastal communities. Again, this is not a novel idea. The Orange County Water District has been inject-

ing reclaimed water into the Talbot Barrier since the 1970's with significant financial assistance from the Department of the Interior.

The West Basin Reclamation Program is expected to cost between $150 and $200 million. There are a variety of potential funding sources. California Assembly Bill 444 authorized the expenditure of $65 million for water conservation and water quality projects, including developing a replacement supply to protect the Mono Lake environment. In addition, low-interest loans are available from the State of California. West Basin Municipal Water District will also use its bonding capabilities to finance construction. The proposed authorization for the Bureau of Reclamation to assist the West Basin Water Reclamation Program with a 25 percent federal financing is a critical element to the total cost sharing of the capital construction costs.

West Basin Municipal Water District is the lead agency for implementing the water reclamation program, however, many other governmental agencies are involved in ensuring that the program is successfully implemented.

Schedule

Initiate facility plan and engineering feasibility studies (expect to complete spring, 1991)
Initiate environmental impact assessment (expect to complete March, 1991)
Start construction summer, 1992
Initiate delivery of reclaimed water summer, 1994

Mr. Chairman, thank you for the opportunity to provide this written testimony and the West Basin Municipal Water District looks forward to the passage of S. 2657 to secure new water supplies for Southern California and reduce the amount of water pollution to Santa Monica Bay.

PREPARED STATEMENT OF ROGER FRAUENFELDER, ASSISTANT CITY MANAGER, SAN DIEGO, CA

The introduction of this bill is an affirmative response to the critical drought situation which responds to the increasing public concern for better management of Southern California's water supply. It is no longer acceptable to use water once, treat it as waste, and throw it away. This bill provides the necessary funding for the feasibility studies required to effectively investigate and identify water reclamation and reuse opportunities for municipal wastewater in San Diego under—section 104(a) Southern California Comprehensive Wastewater Reclamation and Reuse Study—but it does not address the funding issue for design and construction of reclamation facilities.

When it comes to water usage in San Diego today, people can't afford to simply work with existing resources. They need to make those resources work for them. Currently, San Diego, California residents rely on about ninety percent of their water from sources beyond the San Diego County line—mostly from the Colorado River and Northern California. At this time supply is approximately equal to demand, but between five and ten percent of the existing dependable supply may be lost during the next five years as increasing amounts of the Colorado River water are diverted to the Central Arizona Project.

Recognizing this water dilemma, the City of San Diego embarked on an extensive reclamation and reuse driven upgrade of its Metropolitan Sewerage System (Metro). The Clean Water Program, which was established in 1987 is the single largest public works project in San Diego's history and perhaps the most aggressive of its kind in the nation. The 2.4 billion dollar project involves the design and construction of a vast wastewater treatment and water reclamation network to accommodate the projected increases in wastewater flow from 190 million gallons per day (mgd) in 1990, to 246 mgd by 2010 and 340 mgd by 2050.

December of 1990 will complete the three-year planning phase of the Clean Water Program. We are currently in the predesign phase of some accelerated projects and are preparing to move into the design phase next year. Implementation is the key word for San Diego. The Metro System will approach capacity by 1995. San Diego is on a critical path to meet the increasing flow demands on the wastewater system and supplement our limited water resources. Implementation of Water Reclamation is a necessity in San Diego. The Clean Water Program has extensively studied the options of reclamation plant locations and systems sizes related to markets, storage, and disposal options, and has concluded that the optimum system of seven water reclamation plants would meet San Diego's goal of seventy thousand acre feet per year while minimizing environmental impacts. The facilities include an extensive

distribution system connected to a major transmission system which will also convey any seasonal excess reclaimed water to the ocean. The 2.4 billion dollars is the estimated capital cost of the project in 1990 dollars.

Unfortunately, the Environmental Protection Agency grant funds for this project will no longer be available. State Revolving Fund loans will be pursued to the maximum extent that this potential funding source could support San Diego's Clean Water Program. But the funds available through the State Revolving fund are relatively small compared to the requirements of the San Diego program. We are very pleased with the efforts of Senator Bradley and Senator Packard in introducing legislation that will potentially provide additional funding assistance for our program. We note the specific assistance references to funding in bill S. 2657 for water reclamation studies in San Diego and we would welcome support in the area of study and research. But, while we still have some investigative work to do, we are at this time embarked on the design of expensive water reclamation facilities and by the end of 1992 we plan to advertise construction contracts for the construction of the first of these much-needed water reclamation plants.

We in San Diego, without the promise of federal assistance, have undertaken an aggressive program of water reclamation driven by the need to stretch our precious stable water resource and to comply with federal law. Your efforts in helping us meet our water reclamation goals would be most appreciated by the citizens of the San Diego region.

PREPARED STATEMENT OF JIM COUCH, DIRECTOR, WATER AND WASTEWATER UTILITIES DEPARTMENT, OKLAHOMA CITY

The purpose of this testimony is to urge this Committee to consider a request from Oklahoma City to allow the city to repurchase the Federal financing for the McGee Creek Reservoir. The McGee Creek Reservoir was constructed over the past ten years in Southeast Oklahoma to provide flood control, recreation and a supply of water for citizens within the service area of the reservoir, including the City of Oklahoma City.

In August, 1977, the McGee Creek Authority was formed to act as the contracting party with responsibility for repaying costs of constructing water storage and water transportation facilities at the reservoir. This authority contracted with the Federal Government through the Bureau of Reclamation in 1979 and the Oklahoma City Municipal Improvement Authority (now the Oklahoma City Water Utilities Trust) entered into an agreement to provide financial support in the event that the McGee Creek Authority is unable to fund its share of reservoir costs.

Now that the reservoir is complete, the Authority is preparing to repay its obligation. The repayment schedule was structured to be paid over a 50 year period with portions of the debt carried interest free for the first ten years. There are benefits to both the McGee Creek Authority and the Federal Government as a result of the proposed legislation which has been included in the House Energy and Water Appropriations Committee. The Authority can save considerably by financing this payment on the open market allowing the Authority to make the one time payment in lieu of their contract schedule. The benefit to the Federal Government is immediate payment of a long term debt. The Federal Government incurs a cost as a result of the interest free period. The present value (at 9%) of the string of payments accruing to the Federal Government is $88,629,000. This is the amount approved by the House on June 13, 1990 in an amendment to H.R. 2567, the Bureau of Reclamation Authorization Act of 1989.

The McGee Creek Authority incurred unnecessary interest cost during the past two years because they were precluded from accepting the project by federal legislation that has since been rescinded. A more reasonable buyout amount would be $80,000,259, which is the present value of the proposed payment schedule after adjusting out interest from October, 1987 to November, 1989. This is the amount of repurchase if we were able to complete the transaction in 1987 as the City was prepared to do. Over the past two years the City has not received any water from the reservoir because of the previous Congressional provision in the 1987 legislation and has not benefited from its ownership of the water supply. As a result, we are requesting the proportionate reduction in the interest cost.

Thank you very much for your consideration. Timing on this proposal is critical and that is why we have requested the provision in the FY 91 Energy and Water Appropriations bill.

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